DOCUMENT RESUME

ED 384 585 SP 036 079

AUTHOR Einbender, Lynne; Wood, Diane
TITLE An Authentic Journey: Teachers' Emergent Understandings about Authentic Assessment and Practice.
INSTITUTION Columbia Univ., New York, NY. Teachers Coll. National Center for Restructuring Education, Schools and Teaching.
PUB DATE May 95
NOTE 81p.
AVAILABLE FROM NCREST, Box 110, Teachers College, Columbia University, New York, NY 10027 ($8).
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Class Activities; Classroom Techniques; Educational Change; Elementary School Teachers; Elementary Secondary Education; *Evaluation Methods; Faculty Development; Individualized Instruction; Instructional Innovation; Public Schools; Secondary School Teachers; Student Evaluation; *Teacher Attitudes; *Teacher Student Relationship; Teaching Methods
IDENTIFIERS *Authentic Assessment; Reform Efforts

ABSTRACT

As a challenge to traditional assessment, this paper describes how the work of a network of teachers to improve schooling through authentic assessment and practice may lead to a general reform of nearly all aspects of the educational enterprise. The paper springs from observation of participant teachers in the Four Seasons Project which is designed to promote significant school change by changing fundamental assessment practices. Four Seasons is a partnership of four school reform organizations: the Coalition of Essential Schools, the Foxfire Teacher Outreach Network, Project Zero, and the National Center for Restructuring Education, Schools, and Teaching. Chapter 1 explores why the teachers involved in this work have made their public commitment to develop authentic assessment and finds reasons in teachers' philosophies about teaching and learning in their autobiographical stories of experiences as students and teachers. Chapter 2 explores teachers' views of the relationships between curricula, instruction, and assessment as inseparable elements of authentic practice. Chapter 3 explores the difficulties, false starts, and mistakes in their experiences with authentic assessment. Chapter 4 describes classroom practice to portray how assessment, curriculum instruction, and relationships are woven throughout the classroom experience of teachers and students. Chapter 5 reflects on authentic assessment and its influence on systematic change. (Contains 37 references.) (JB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 384 585

An Authentic Journey

Teachers' Emergent Understandings about Authentic Assessment and Practice

Lynne Einbender
Diane Wood

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D. Harrington

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

S1836049

NCREST

The National Center for Restructuring Education, Schools, and Teaching (NCREST) was created to document, support, connect, and make lasting the many restructuring efforts going on throughout the nation. NCREST's work builds concrete, detailed knowledge about the intense and difficult efforts undertaken in restructuring schools. This knowledge is used to help others in their attempts at change, to begin to build future education programs for school practitioners, and to promote the policy changes that will nurture and encourage needed structural reforms. The Center brings together many voices: those of practitioners and researchers, parents and students, policy makers and teacher educators.

NCREST is supported by a major grant from the DeWitt Wallace-Reader's Digest Fund. NCREST's work in New York City, through its Center for School Reform, is supported by the Leon Lowenstein Foundation and the Aaron Diamond Foundation. Other funders have included Carnegie Corporation of New York, the Center for Collaborative Education, the Danforth Foundation, the Geraldine R. Dodge Foundation, the Ford Foundation, the Fund for New York City Public Education, Impact II, the Lilly Endowment, Inc., the Andrew Mellon Foundation, the Metropolitan Life Foundation, the National Center for Research on Vocational Education, the New York Community Trust, the New York State Department of Education, the Pew Charitable Trusts, the Regional Laboratory for Educational Improvement of the Northeast and Islands, the Rockefeller Foundation, and the U.S. Department of Education.

Additional copies of this publication may be ordered for $8 each. All orders must be prepaid by check or money order payable to NCREST. Contact:

NCREST
Box 110, Teachers College
Columbia University
New York, NY 10027
Fax: (212) 678-4170

An Authentic Journey

Teachers' Emergent Understandings about Authentic Assessment and Practice

An Authentic Journey

Teachers' Emergent Understandings about Authentic Assessment and Practice

Lynne Einbender
Diane Wood

May 1995

Acknowledgements

We thank our colleagues in the Four Seasons National Faculty for sharing their insights and practices with us. They are extraordinarily inspiring, committed, and gifted teachers. We also thank our NCREST colleagues Kathe Jervis and Anne Sabatini for their support while we worked on this project.

Lynne Einbender
Diane Wood

Contents

Introduction	**1**
Why Authentic Assessment or Why the Road Less Travelled?	**8**
Crossing Boundaries to Create Authentic Practice	**15**
Areas Under Construction: Roadblocks and Detours with Authentic Assessment	**37**
Classroom Portraits of Authentic Practice	**50**
The Journey toward Authentic Assessment: Where This Road Leads	**60**
References	**68**
Appendix A	**71**

Introduction

Well-intentioned reformers all over the United States proffer plans for rescuing children from the ills of public education, using standardized test scores as evidence that schools are failing. Many of them accuse cumbersome public school bureaucracies of being inept at coping with troubling student dropout rates, exploding social and technical knowledge, increasingly diverse student populations, flagging science and math performances, semiliterate graduates, and increasing in-school violence. But nothing raises public alarm so much as a downward trend in national test scores. Thus, in the process of justifying their particular take on school improvement, many would-be reformers use standardized test scores as a central theme in their calls for action.

It is the purpose of this paper to tell a different, and perhaps more hopeful, story about school change. In our story, classroom teachers play the role of central protagonists, rather than being objects of analysis. In their struggle to improve schooling, these teachers turn widely accepted notions about the connections between standardized assessment and school reform on their head.

Instead of using test scores as the measure of the relative success of schools or as a guide for improving them, they ask why decades of the same standardized assessment practices have done so little for the benefit of public education. Shouldn't assessment practices, they ask, help teachers toward greater insights into what motivates and ensures meaningful learning? Shouldn't assessments lead teachers to see not only *why* but *how* they ought to continuously improve their classrooms and schools? Shouldn't assessments help students to see both strengths and weaknesses, guiding them in the process toward continual intellectual and personal growth and development? Shouldn't assessments, in Maxine Greene's (1994) words, "open spaces for possibilities", offering students insights into and direction toward a lifetime of learning, rather than classifying and sorting them into no-exit ability tracks -- a scenario all too typical of school practice? Why not design assessment practices that signal for students new beginnings for learning rather than cumulative summaries of past performances? Why, ask these teachers, haven't decades-long assessment practices led to meaningful school changes that continually meet the challenges of shifting populations, contexts, and conditions?

Public schools, in fact, have changed very little since the nineteenth century (Cohn and Kottkamp, 1993; Goodlad, 1984; Sarason, 1991) despite all the money, time, and effort poured into standardized testing. The Four Seasons Project is designed to promote significant, and badly needed, school change by changing fundamental assessment practices. Four Seasons represents a partnership of four school reform organizations, the Coalition of Essential Schools, the Foxfire Teacher Outreach Network, Project Zero, and the National

Center for Restructuring Education, Schools, and Teaching (NCREST). Bringing together approximately equal numbers of teachers from the Coalition, Foxfire, and Project Zero membership, the Four Seasons Project seeks to create a national faculty dedicated to developing, implementing, and disseminating authentic assessment practices. Currently, the Four Seasons National Faculty includes 70 teachers from 15 states across the country. NCREST contributes to their efforts by soliciting funding, administering the project, documenting its growth, and coordinating the dissemination phase of the project.

While the four organizations share a progressive educational philosophy, each approaches its school reform work from a distinctive angle and so recognizes that it has much to learn from the others. Coalition teachers, for example, offer an approach for organizing teaching and learning around nine essential principles that redefine the fundamental work of both teachers and students, the specifics of which must be interpreted and implemented through careful consensus-building by individual faculties at the local level (see Figure 1). Foxfire teachers contribute that organization's long-term commitment to and expertise in creating responsive, emergent learning experiences rooted in students' interests, needs, and knowledges (see Figure 2). Project Zero teachers bring their unique perspective on the human intellect, a perspective that views human intelligences as multiple and that structures learning environments so that students can use intellectual strengths to pursue new learnings and develop new competencies (see Figure 3). All share a commitment to the development and implementation of authentic assessment practices because they recognize assessment's potential as a lever to improve schools.

As this paper will show, once teachers attempt to make changes in assessment practices, they feel the pressure to change curricula and organizational structures. Hence, the professional commitments of the teachers in the National Faculty extend beyond their classrooms to the schools and communities in which they work. They recognize the importance of teacher knowledge and the necessity for teachers to enter into the larger discourse of school improvement. The Four Seasons Project aims to disseminate these emergent understandings about authentic assessment to a range of audiences, including practitioners, policy makers, teacher educators, and researchers. In doing so, the Four Seasons Project seeks to validate and disseminate the work of teachers as active participants in this process of reform.

This paper is one of the first efforts to disseminate what the National Faculty are learning to those outside the Four Seasons Project. Twenty-one Four Seasons school practitioners contribute directly to this document but, in reality, the paper emerges from insights gleaned from all participants in the Four Seasons community. Since 1992 the participants of the Four Seasons Project have created, through their interactions, a strong community of learning, united by a commitment to invent generative assessments with the power to improve teaching and learning. In order to facilitate ongoing communication, the project links Four Seasons teachers via a tele-conferencing network. In addition, it has convened two week-long summer institutes in 1992 and 1993 and presently sponsors regional conferences planned and directed by Four Seasons faculty for area teachers.

Figure 1

Coalition of Essential Schools

THE COMMON PRINCIPLES

1. The school should focus on helping adolescents **learn to use their minds well**. Schools should not attempt to be "comprehensive" if such a claim is made at the expense of the school's central intellectual purpose.

2. The school's goals should be simple: that each student **master a limited number of essential skills and areas of knowlege**. While these skills and areas will, to varying degrees, reflect the traditional academic disciplines, the program's design should be shaped by the intellectual and imaginative powers and competencies that students need, rather than necessarily by "subjects" as conventionally defined. The aphorism "Less is More" should dominate: curricular decisions should be guided by the aim of thorough student mastery and acievement rather than by an effort merely to cover content.

3. The school's **goals should apply** to all students, while the means to these goals will vary as those students themselves vary. School practice should be tailor-made to meet the needs of every group or class of adolescents.

4. **Teaching and learning should be personalized** to the maximum feasible extent. Efforts should be directed toward a goal that no teacher have direct responsibility for more than 80 students. To capitalize on this personaliztion, decisions about the details of the course of study, the use of students'and teachers' time and the choice of teaching materials and specific pedagogies must be unreservedly placed in the hands of the principal and staff.

5. **The governing practical metaphor of the school should be student-as-worker** rather than the more familiar metaphor of teacher-as-deliverer-of-instructional-services. Accordingly, a prominent pedagogy will be coaching, to provoke students to learn how to learn and thus to teach themselves.

6. Students entering secondary school studies are those who can show competence in language and elementary mathematics. Students of traditional high school age but not yet at appropriate levels of competence to enter secondary school studies will be provided intensive remedial work to assist them quickly to meet these standards. **The diploma should be awarded upon a successful final demonstration of mastery** for graduation—an "Exhibition." This Exhibition by the student of his or her grasp of the central skills and knowledge of the school's program may be jointly administered by the faculty and by higher authorities. As the diploma is awarded when earned, the school's program proceeds with no strict age grading and with no system of "credits earned" by "time spent" in class. The emphasis is on the students' demonstration that they can do important things.

7. **The tone of the school** should explicitly and self-consciously stress values of **unanxious expectation** ("I won't threaten you but I expect much of you"), of trust (until abused) and of **decency** (the values of fairness, generosity and tolerance). Incentives appropiate to the school's particular students and teachers should be emphasized, and parents should be treated as essential collaborators.

8. **The principal and teachers should pereive themselves as generalists first** (teachers and scholars in general education) and specialists second (experts in but one particular discipline). Staff should expect multiple obligations (teacher-counselor-manager) and a sense of commitment to the entire school.

9. Ultimate administrative and budget targets should include, in addition to **total student loads per teacher of eighty or fewer pupils, substantial time for collective planning by teachers, competitive salaries for staff and an ultimate per pupil** cost not to exceeed that at traditional schools by more than 10 percent. To accomplish this, administrative plans may have to show the phased reduction or elimination of some services now provided students in many traditional comprehensive secondary schools.

Any list of such brevity and specificity begs for elaboration, and it is this elaboration that must first engage the energies of each Essential school. The process of designing programs and putting them into place will take several years, and the inevitable adjustments then required will consume some years after that. Due to its complexity, school redesign is a slow and often costly business. And due to the need to adapt each design to its own constituency of students, teachers, parents, and neighborhoods and to create a strong sense of ownership of it by those who are involved, this redesign must be largely done at the level of the individual school—even as that school adheres to the principles and standards common among the Coalition member schools.

Figure 2

The Foxfire Approach: Perspectives and Core Practices

Perspectives

This revision of what was entitled "Nine Core Practices" reflects the latest in our collective thinking about the principles and practices characteristic of the approach to instruction we pursue. The principles and practices are not scriptural; they are not oracular. They come from reflections and discussions on the results of classroom instruction. In time, we will refine them again to reflect the best of our thinking.

This approach to instruction is one of several promising approaches, some of which share many of the same principles. We've found that as each of us explores this approach in our classrooms, we broaden the base of experience from which we all work, often engaging other, resonant approaches and strategies. The approach never becomes a "recipe" for any teaching situation, nor a one-best-way teaching methodology that can be grasped through one-shot, in-service programs or teacher "handbooks."

In the contexts in which most of us work, few of us will be able to say that our instruction manifests all of these "core practices." Being able to assert that is not the point. The point is to constantly review our instructional practice. For when that happens, we and our students experience the most elegant and powerful results this approach can deliver.

The goal of schooling—and of this approach to instruction—is a more effective and humane democratic society. Individual development through schooling is a means to that goal. Often given rhetorical approval while being ignored in practice, that goal should infuse every teaching strategy and classroom activity.

As students become more thoughtful participants in their own education, our goal must be to help them become increasingly able and willing to guide their own learning, fearlessly, for the rest of their lives. Through constant evaluation of experience, and examination and application of the curriculum, they approach a state of independence, of responsible behavior, and even, in the best of all worlds, of something called wisdom.

Core Practices

1) **All the work teachers and students do together must flow from student desire, student concerns**. It must be infused from the beginning with student choice, design, revision, execution, reflection and evaluation. Teachers, of course, are still responsible for assessing and ministering to their students' developmental needs.

   Most problems that arise during classroom activities must be solved in collaboration with students. When one asks, "Here's a situation that just came up. I don't know what to do about it. What should I do?" the teacher turns that question back to the class to wrestle with and solve, rather than simply answering it. Students are trusted continually, and all are led to the point where they embrace responsibility.

2) **Therefore, the role of the teacher must be that of collaborator and team leader and guide rather than boss**. The teacher monitors the academic and social growth of every student, leading each into new areas of understanding a competence.

   And the teacher's attitude toward students, toward the work of the class, and toward the content area being taught must model the attitudes expected of students—attitudes and values required to function throughtfully and responsibly in a democratic society.

3) **The academic integrity of the work must be absolutely clear**. Each teacher should embrace state- or local-mandated skill content lists as "givens" to be engaged by the class, accomplish them to the level of mastery in the course of executing the class's plan, but go far beyond their normally narrow confines to

discover the value and potential inherent in the content area being taught and its connections to other disciplines.

4) **The work is characterized by student action, rather than passive receipt of processed information**. Rather than students doing what they already know how to do, all must be led continually into new work and unfamiliar territory. Once skills are "won," they must be reappplied to new problems in new ways.

Because in such classrooms students are always operating at the very edge of their competence, it must also be made clear to them that the consequence of mistakes is not failure, but positive, constuctive scrutiny of those mistakes by the rest of the class in an atmosphere where students will never be embarrassed.

5) **A constant feature of the process is its emphasis on peer teaching, small group work and teamwork**. Every student in the room is not only included, but needed, and in the end, each student can identify his or her specific stamp upon the effort. In a classroom this structured, discipline tends to take care of itself and ceases to be an issue.

6) **Connections between the classroom work and surrounding communities and the real world outside the classroom are clear**. The content of all courses is connected to the world in which the students live. For many students, the process will engage them for the first time in identifying and characterizing the communities in which they reside.

Whenever students research larger issues like changing climate patterns, or acid rain, or prejudice, or AIDS, they must "bring them home," identifying additudes about and illustrations and implications of those issues in their own environments.

7) **There must be an audience beyond the teacher for student work**. It may be another individual, or a small group, or the community, but it must be an audience the students want to serve, or engage, or impress. The audience, in turn, must affirm that the work is important and is needed and is worth doing—and it should, indeed, *be* all of those.

8) **As the year progresses, new activities should spiral gracefully out of the old**, incorporating lessons learned from past experiences, building on skills and understandings that can now be amplified. Rather than a finished product being regarded as the conclusion of a series of activities, it should be regarded as the starting point for a new series.

The questions that should characterize each moment of closure or completion should be, "Now what? What do we know now, and know how to do now, that we didn't know when we started out together? How can we use those skills and that information in some new, more complex and interesting ways? What's next?"

9) **As teachers, we must acknowledge the worth of aesthetic experience**, model that attitude in our interactions with students, and resist the momentum of policies and practices that deprive students of the chance to use their imaginations. We should help students produce work that is aesthetically satisfying, and help them derive the principles we employ to create beautiful work.

Because they provide the greatest sense of completeness, of the whole, of richness—the most powerful experiences are aesthetic. From those experiences we develop our capacities to appreciate, to refine, to express, to enjoy, to break out of restrictive, unproductive modes of thought.

Scientific and artistic systems embody the same principles of the relationship of life to its surroundings, and both satisfy the same fundamental needs.
—John Dewey

10) **Reflection—some conscious, thoughtful time to stand apart from the work itself—is an essential activity that must take place at key points throughout the work**. It is the activity that evokes insights and nurtures revisions in our plans. It is also the activity we are least accustomed to doing, and therefore the activity we will have to be the most rigorous in including, and for which we will have to help students develop skills.

11) **The work must include unstintingly honest, ongoing evaluation for skills and content, and changes in student attitude**. A variety of strategies should be employed, combination with pre- and post-testing, ranging from simple tests of recall of simple facts through much more complex instruments involving student participation in the creation of demonstrations that answer the teacher challenge, "In what ways will you prove to me at the end of this program that you have mastered the objectives it has been designed to serve?"

Students should be trained to monitor their own progress and devise their own remediation plans, and they should be brought to the point where they can understand that the progress of each student is the concern of every student in the room.

Figure 3

The Development Group at Project Zero
Harvard Graduate School of Education
Cambridge MA 02138
(617) 495-4342

Statement of Core Values

Our perspective on educational reform is based on the belief that curricula and assessment should reflect the best thinking on the part of disciplinary expects and educators: curricula should bring about rich understandings, and assessments should look directly at student achievement in as authentic a way as possible.

To articulate the values implicit in our view, we propose the following educational "bill of rights."

1. All students can learn and can achieve deep understandings within and across the disciplines.

2. Students do not all learn in the same way. They deserve to be taught and assessed in ways which are appropriate to their intellectual strengths and their modes of learning.

3. Educational curricula should include knowledge and skills which are to be achieved by all members of the community; equal emphasis should be placed on the attainment of knowledge and skills which resonate with student's own intellectual interests, strenghts, and cultural heritage.

4. Curricula which are rich in projects, exhibitions, and portfolios are espeically suited to the achievement of an education which combines common knowledge and themes with the pursuit of areas of individual interest and excellence.

5. Assessment is crucial in the educational process; it must be authentic, realistic, and affordable. It should begin in the classroom but must ultimately be justifiable to the wider community.

6. Assessment should be tied integrally to the curriculum and ought to become a regular and increasingly habitual and reflective part of every individual's learning.

7. All members of the community share responsibility for assessment: the general public, administrators, teachers, parents, and the students themselves.

8. To attain an education for understanding, and to achieve and sustain responsible curricula and assessment, requires a long-term investment of resources. There are no short cuts. Teachers require and deserve the same kind of long-term sustenance as do students.

The data for this paper emerged directly from the collaborative relationships sparked by the Four Seasons initiative. After we issued a general request for volunteers in the summer of 1993, 21 Four Seasons National Faculty responded generously, sharing their conversations and insights with us. For example, a storytelling item on the on-line network stimulated a number of teachers' stories as they went about implementing authentic assessment in their classrooms. Those involved agreed to share those stories with us. Some Four Seasons teachers, at our request, have contributed other forms of writing, such as journal excerpts, personal reflections, classroom logs, anecdotes, and critical incidents. Others allowed our taping of extended collaborative conversations during the 1993 summer institute on assessment issues, conversations that included more stories of practices and experiences in classrooms, as well as extensive commentaries about the struggles involved in implementing authentic assessment. Still others participated in lengthy taped, open-ended interviews. And during the fall of 1993, two teachers welcomed us into their classrooms so that we could have a firsthand look at the implementation of new approaches to assessment.

Into this mix, however, is some of what we, at NCREST, have learned alongside the teachers. We, too, have attended the summer institutes and participated in the on-line conversation. We have shared in the process of community building that supports the collective inquiry of the Four Seasons National Faculty about assessment issues. In addition, each of our individual perspectives, in part shaped by years of experience as school practitioners and subsequently as NCREST researchers, have contributed to the collaborative process that has guided this paper from the start.

Having gathered all of this data and leaning on our own experiences and insights, we transcribed tapes, reviewed field notes, read through teacher writings, and began attempts to make sense of our data. This process, of course, included frequent searching conversations, not only between ourselves, but with other colleagues. We found that in our data the Four Seasons teachers who agreed to work with us seemed to raise certain issues over and over again. We began to see categories emerging and followed up on these emergent categories by consulting the teachers as we worked through the process. We have also shared drafts of this paper with Four Seasons teachers.

As researchers in the participant-observer tradition, we wish to explicitly acknowledge the co-construction of meaning and knowledge at the heart of this paper. If this paper offers any new insights into authentic assessment, it will be the result of our close collaboration with Four Seasons teachers. We believe that the knowledge and skills of teachers, too long devalued and dismissed (Lortie, 1975), have much to contribute to both professional practice and educational policy. In that spirit, we attempt to portray what the Four Seasons Project has learned and what continuing struggles, dilemmas, and questions teachers have as they implement authentic assessment.

Chapter One

Why Authentic Assessment or Why the Road Less Travelled?

Feeling the intense pressures of societal, school, and classroom realities, teachers frequently feel the desire to close the classroom door and get on with doing the best they can for students (Cohn and Kottkamp, 1993; Goodlad, 1984; Jackson, 1990; Lortie, 1975). Four Seasons teachers, on the other hand, convinced that the creation of alternative forms of assessment are badly needed, have made an open, public commitment to work to develop them. As researchers, we were curious to discover why teachers would make such a commitment. We found some reasons, not only in the teachers' stated philosophies about teaching and learning, but also in their autobiographical stories of experiences as students and as teachers. Frequently, these stories focus on standardized tests and traditional grading systems, pervasive practices that they believe have been injurious to students.

Standardized Tests: The Only Road to Success?

Since few educators disagree that teaching, learning, and assessment are inextricably related, using assessment as a lever for school improvement has been a popular strategy for years. Forty-seven state departments of education have instituted compulsory testing programs over the last two decades (Anrig, 1992). Reliance on standardized tests has deep roots in the history of education. Birthed in the Industrial Revolution, mass public education reflects that era's optimistic infatuation with scientific management and assembly-line efficiency (Cremin, 1964; Tyack, 1974). Teaching and learning evolved as linear processes, dependent on an efficient delivery system requiring students to memorize and adopt discrete facts, skills, and concepts. Paper-and-pencil tests frequently punctuated the process as summative measures of student learning. In addition, the early twentieth century introduced widespread IQ testing, fueling interest in normative comparisons made between large populations of people. This led to even more forms of norm-referenced testing. Standards for quality schooling and for ranking its effectiveness increasingly emerged from what these tests were capable of measuring. Now that these tests have been widely used for over 50 years, the quantification of school quality has become a convention that continues to shape the policy contexts of most schools today.

Despite their widespread influence, the uses of standardized testing have been criticized continuously for almost a decade in the popular and professional literature (Gould, 1981; Darling-Hammond, 1991; Madaus, 1991, McLaughlin, 1991; Resnick and Resnick, 1985; Shepard, 1991; Wiggins, 1989, 1990, 1991). With the call for higher standards ringing out from the school house to the White House, we question the capacity of standardized testing to address this challenge. A major problem is that too many policy

makers equate educational standards with test scores, sometimes ignoring such issues as equity in educational opportunity and quality of learning. For example, schools in higher socioeconomic areas typically boast higher standardized test scores; can or should the public draw the conclusion that school practices are better in such schools? Furthermore, if students do well on standardized tests, are they demonstrating understanding of academic content or memorization of discrete facts and processes? A statistical norm simply cannot provide an explicit, concrete, readily understandable standard toward which students and teachers can aim (Resnick and Resnick, 1985). And test scores do not explicitly reveal *why* standards are or are not being attained. Thus, the information provided does not help to guide the curricular and instructional decisions that could then improve student performance. Achievement tests, created and scored off site, ignore the integral relationship of teaching, learning, and assessment.

For instance, Carol White shared a story from her own life with Four Seasons colleagues. As a student transferring to a new school, she was known solely through a standardized test score. One wise teacher decided to take a closer look and give her a new beginning:

> The testing issue is a very personal one to me. . . . When I was in the eighth grade, I moved to Indianapolis. . . . And when I moved to Indianapolis, they had a K through 8 [school] and then a high school. So I came in on the last year of this eight year program. . . . And that year I was just tortured. . . . And personally I didn't fit in because I was not a stereotypical kid from the neighborhood where I went to school. So I had a hard time. That was the year they tested me to find out where to place me in high school. So . . . when the test scores came out, I scored very low in language and very low in math. So they put me in a slow math class and a slow English class. . . . And I ended up with this [ninth grade English] teacher who was doing very innovative things. And the first thing she had her class do. . . . The first day of class, she said, "Okay, I want everybody to sit down and I want you to write a story." And what nobody knew and what nobody had asked me for that whole year in the eighth grade was what do you like to do with your spare time?

Carol, who spent her spare time writing, created a 10-page story. Her teacher unsurprisingly pronounced the child before her "not slow," called her parents, and had her placed in a different section of English where she flourished. Nevertheless, Carol learned in a painful and firsthand manner a clear lesson: Standardized tests cannot tell the whole story about a child -- any child -- and educators who want to assess their students' capabilities accurately need more than test scores. They need to know their students as unique and whole human beings with a variety of interests and strengths. As Carol puts it, "there was nothing in place to figure out what I was good at" -- nothing more than this one teacher's bent to discover Carol's true potential.

Phyllis Siwiec, echoing the theme that routine testing can have a powerful and sometimes unintended effect on individual students, tells the story of Billy, a student in her second grade class. Billy's mother had requested a chance to talk to Phyllis after noticing her son's uncharacteristic sadness after school one day. Phyllis explains:

> And he's just a very jovial child. And what had happened was that Billy came to me, because I went through and corrected the papers, the tests. We were doing one section at a time [of the standardized tests]. I corrected them every day before they started the next section. I didn't put any "c's" on all that. I just looked and kept a log -- who got what question wrong. And he saw me doing this. And he came over and he said, "What'd I do?" And he was . . . really happy and he came over and he saw his stuff. And he just . . . he just froze, absolutely froze. This wonderfully jovial sunshine beam just turned into an ice block and froze and went to his desk and put his head down. And he started crying. All he saw was his minuses.

Phyllis, a teacher concerned that students see their pluses as well as their minuses, subsequently found a way to comfort Billy and restore his self-confidence as a learner in her class. She contends, however, that policy makers need to understand the ways that standardized tests affect some students' sense of themselves as learners, particularly when teachers work hard to create learning environments that motivate and engage students. For instance, Phyllis believes that students should understand mathematics conceptually as well as mechanically, in order to help students look at mathematical problems from a variety of angles so that they understand multiple approaches to solving them. This is exactly the kind of flexible thinking that many leaders in science, technology, and corporations say is lacking in their employees and, thus, urge schools to include in their practices (Hargreaves, 1994). But such an instructional approach would not be conducive to create in students' minds the "one-right-and-efficient-method" to attain the "one-right-answer" that would most likely ensure high standardized test scores.

Unfortunately, Phyllis sees that standardized tests prevail, entrenching simplistic approaches to teaching and learning. She says of policy makers, "They don't see these kids going through these rich experiences and then shutting down and then becoming mechanical [when they are faced with such tests]."

When standardized tests are used as the sole indicator of student learning, they can carry high-stakes consequences that influence, and even dictate, curricula and teaching practices (Wiggins, 1991). One teacher describes a system in her state by which schools receive extra money for improving their test scores. She questions the logic of denying funds to schools where students are testing poorly. Another describes a practice in her district where "results are published in the papers and the schools are compared across the board." Even an individual teacher's performance, she says, is rated according to test scores. What institutional incentives, she wonders, are provided for teachers who wish to teach students who struggle academically? With money, reputations, and jobs at stake, is it

any wonder that teachers feel the pressure to "teach to the tests?"

Tamara Baren, while discussing these issues with Four Seasons colleagues, reflects aloud on the impact of high stakes testing on teacher morale, curricular choices, and student performance:

> And they [the tests] demoralize the teachers. They take a tremendous amount of time and energy towards the tests. Most people feel a tremendous sense of despair or they feel that they have to prepare . . . girding their loins as if for battle. And then, once the tests are completed, the children feel their obligation to the schooling process is done. You can kiss the rest of the year good-bye after the test to a certain degree [in terms of] real interactive integrity within the classroom . . . . It's really very disruptive.

For Tamara, the standardized testing procedures in her elementary school become a form of assessment separate from and disruptive to the learning process. As time set aside for the tests approaches, she and other teachers feel an obligation to stop work they want to do with their students, work she describes as being grounded in a constructivist philosophy where students build knowledge about their world and learn to make connections. Then, she says, teachers must prepare the students in test-taking skills, bewildering students in the process: "What they really said was, 'It wasn't meaningful work, and it had nothing to do with what we were interested in and had nothing to do with our studies.'" Tamara concludes with her analysis of the ultimate effect on students, "It really took them a couple of weeks to recover from it."

Traditional Grades: Signs of Success?

It is not, however, only standardized testing to which Four Seasons teachers object. They also find traditional grading systems inadequate to capture the complexity of student learning. Carol Coe's story of her student, Brian, illustrates just this frustration:

> Brian is a student in my American Government class. At the end of the semester I will be expected to boil down all that is Brian to a single letter grade, a letter placed on a continuum of an "A" through "F" grading scale. The thought that a single letter grade can represent even a small part of Brian is really quite silly.

Carol explains that Brian is not "an especially strong reader or writer," factors contributing to his performance in American Government. She suggests that traditional grading procedures repeatedly punish students for the same deficits: "What is being assessed is his knowledge and understanding of American Government, not his lack of ability in the three R's." She explains how traditional grades frequently fail to capture the most significant educational aims: "I can assign a letter grade to the report card, [but] it won't come close to predicting how Brian will perform as a U.S. citizen" -- which is, after all, for Carol, the

purpose of the course. According to Carol, Brian displays considerable citizenship skills:

> He may take a "C" from the class, but following graduation, I predict that Brian will be gainfully employed and highly involved in his community. He has, while still in high school, tested water quality for the community, met with city officials in the process of establishing and preserving local wetlands, and organized a student tree planting project. He may take a "C" from the class but that will not reflect his ingenuity, his persistence, and his strength of character.

Carol's story speaks to the very purpose of education. Why is American Government a required course in American high schools? If the development of citizenship is, in fact, one of the values that has determined the inclusion of this subject in the curriculum, then the approaches to instruction and assessment must be aligned so that the stated goals are actually guiding practice. Carol's story shows there are many ways to learn about citizenship and many ways to demonstrate one's understanding of it. Carol's frustration that her school's grading system cannot reflect all that she sees, knows, and appreciates about students like Brian is one indicator that traditional grading sometimes inhibits the recognition of real learning (Wiggins, 1990).

Thus, Four Seasons teachers search for alternative forms of assessment that can capture more fully the breadth and depth of student learning and then enhance that learning. They believe that standardized tests and letter grades have become inappropriately the primary (and sometimes the only) means of evaluating student performance. Such measures do not allow the second chances, the revisions, the refinements, the elaborations, the learnings-from-error that authentic assessment -- and frequently real life -- welcomes. They rarely involve students in reflective thinking about the nature and quality of their own learning.

Authentic Assessment: What It Is

The Four Seasons faculty searches for ways to assess students more authentically instead of using decontextualized test scores and grading systems. We credit Grant Wiggins (1989) with having coined the phrase "authentic assessment." We, and others, use the word "authentic" to contrast the contrived, artificial kinds of tasks required by standardized tests with contextualized, meaningful tasks that have genuine connection to the world outside the classroom. Other terms are also in use in the field, such as "alternative assessment" and "authentic achievement." As teachers struggle to design and implement new approaches to assessment, understandings about them continue to emerge and descriptions of them become more sophisticated. Nevertheless, those involved in the development of authentic assessments are certain they want to avoid the "one-best-way mentality" that characterizes traditional evaluations; thus, authentic assessments take diverse shapes and forms. In order to capture the spirit of this new approach to assessment, we offer a few brief examples and descriptions arising from our conversations and contacts with the Four Seasons faculty.

For example, one common characteristic of authentic assessment involves daily, ongoing observation of student learning -- something that good teachers have always done but may not have recognized as assessment. Thus, one approach to authentic assessment has been the development of more conscious and systematic methods of documenting student achievement with increasing precision and depth. These include a plethora of record-keeping methods that document significant student-learning events and struggles, and portfolios of student work samples that are collected over time. Such documentation provides those assessing student achievement, whether they be teachers, parents, the district, or the state, with real evidence of student development rather than a proxy measure such as a normed test score. Cathy Skowron describes the impact that such portfolio evidence can have on policy makers and others when they have opportunities to see it. Cathy tells of presenting portfolio work to an audience of policy makers and funders:

> We told our story of developing and implementing portfolios by using examples of the kids' reflections about their work, the impact this process had on their learning, and how the kids just blossomed into designers of their [own] learning. A woman sitting in the front row kept nodding affirmatively and smiling throughout my presentation. Afterwards she came up to tell me how clear and powerful the children's voices were. I found out later that she was the chairperson for the foundation's funding committee. Everytime that I've had to do a presentation, for whatever audience, it has been in telling the story with clear examples of the kids' work presented in the context of the classroom dynamics that makes the most impact. I usually end with a quote from one of my second grade students: "Some kids can't read very well, or are shy. It's easier for them to express themselves on video because there's no worry about writing, spelling, periods, and things like that. You can see a video [that is used to document an individual student's learning] whenever you want to, so it helps you remember what you learned. Portfolios are better than tests because tests only tell how good or how bad you can read and write and fill in little circles. Portfolios show much more -- the other stuff like art, research, projects -- what you can't do on paper." I couldn't summarize our experience with portfolios any better than that!

A second method Four Seasons teachers might use is more testlike as teachers present students with a task designed to demonstrate their understanding of the content under study. Teachers using performance-based assessments ask students to search for ways to connect their learnings to contextualized issues and problems that transcend school walls. In other words, students apply their knowledge, rather than merely recalling it. Teachers skillful in performance-based assessments structure them so that the students' problem-solving strategies are explicitly valued along with correct answers.

Last, we mention exhibitions that typically ask students to synthesize knowledge from several disciplines and present this knowledge in some public way that may be designed by the student. The Coalition of Essential Schools has its "Exhibitions Collection," which

showcases the many assessment designs Coalition teachers have created and implemented in classrooms across the country.

An important characteristic of authentic assessment is the engagement of students in self-assessment so that they can begin to critique and improve their own work and take ownership for their own learning. In order to assess this metacognitive growth, multiple indicators of student achievement must be used so that diverse student approaches to learning, thinking, and making meaning are recognized and celebrated. Teachers must design methods of facilitating students' active participation in the development of their understanding of the goals, values, and standards that guide their community's standards of excellence. As the demand to uncouple classroom practice from the rigidity of standardization grows, the press to establish standards -- curriculum standards, achievement standards, opportunity-to-learn standards, content standards, national standards -- has swelled to take its place on the school reform agenda. Successful implementation of authentic assessment can inspire the development of processes and structures to focus school communities on the standards to guide student achievement and professional practice.

The Issue of Standards: A Journey or a Destination?

Shifting the responsibility away from testing companies and back to educators, as the Four Seasons Project attempts to do, involves many issues. Among them is finding ways to support a transition from standardization to the development of standards, not only to guide the design of assessments, themselves, but also to monitor their uses for a range of purposes: the guiding of teaching practice in ways responsive to students' educational needs; the evaluation of student performance; the provision of assurances that goals and practice are mutually instructive and continually growing more congruent.

This vision for change requires assessment practices that embody standards but refuse the stasis of standardization. The Four Seasons Project supports a vision of standard setting that is dynamic and responsive to local contexts while representative of broader social and educational aims. Thus, the process of setting educational standards should be a community activity, with members of that community representing the broad range of stakeholders in American education.

Standards must be pegged to the real-world notion of excellence as evidenced in the actual processes and products of human endeavors. They must be grounded in the values of a democratic society. Standards must arise from school communities struggling to develop and implement an educational vision that places students' needs and interests at its center. Standards must result from teachers' and students' struggling to articulate their understanding of criteria for quality achievement as they learn to value, critique, and improve their own work. In summation, standards, and the assessments designed to ensure them, must evolve on site and in context, be dynamic and yet grounded in the knowledge and experience of the community that develops them. Committing to the journey *is* the destination.

Chapter Two

Crossing Boundaries to Create Authentic Practice

A specific Western world view, dominant since the Age of Enlightenment, legitimates the stranglehold standardized testing has exercised so long over educational practices. That world view, now referred to as modernist, posits a singular reality discoverable only through objective inquiry required by the scientific method. Humanity, according to the modernists, accumulates knowledge about the one true reality by observing, measuring, recording, and analyzing. Truth claims must be grounded in measurable, observable evidence and logical argument. Learning, according to this world view, becomes a matter of memorizing and understanding accepted, codified bodies of knowledge broken down analytically into component parts. Clearly, these conceptions of knowing separate the knower from the known, mind from body, human beings from their contexts, objective analysis from subjective experience, and reason from emotion. The decontextualized, quantifiable norms established by standardized tests fit just such a world view perfectly.

The modernist world view, however, increasingly has come under heavy attack in this last part of the twentieth century. Postmodern critics suggest that human reality is not an objective entity but a social construction. In fact, they argue, there are multiple realities and multiple ways of learning about them (Banks, 1993; Belenky, Clinchy, Goldberger, and Tarule, 1986; Harding, 1991). Knowledges, then, are also multiple human constructions subject to continual reinterpretation, elaboration, and refinement (Minnich, 1990). "Official knowledge" -- the creation of those people with the power and influence to make their interpretations of existence authoritative -- provides only one perspective. In order to make human understandings more comprehensive and complete, and to ensure equal access to knowledge for all, many more perspectives need inclusion. If knowledges are human constructions, and not mirror-images of one, objective reality, then knowing becomes a constructive act. One cannot separate the knower from the known, thinking from doing, knowledge from context, objectivity from subjectivity. Learning engages the whole person and becomes a form of meaning making; real learning translates into actions in lives outside the classroom (Resnick, 1987).

We see the teachers of the Four Seasons National Faculty as pioneers in their collective ability to see and move beyond the sorts of boundaries that have legitimated the standardized approach to assessment. In addition, these traditional boundaries artificially separate aspects of schooling, such as one subject from another, evaluation from instruction, instruction from learning, one grade level from another, and personal experiences and relationships from public activities and roles. Four Seasons teachers' integrated conception of schooling stands in stark contrast to the business-as-usual workings of most schools, where

demarcations abound, constraining imagination and possibility.

One of the Four Seasons teachers, Barbara Renfrow-Baker, suggests this boundary-crossing theme in this anecdote from her classroom:

> During choice time one morning, I was unpacking 14 boxes of book club books to awaiting students [our 44 6- to 9-year-olds enjoy the boxes as much as the books within -- more junk for "construction area"]. When I finished, I looked through the books I had ordered and wrote my name on them. I was at a student's desk, within earshot and visibility of Dan, walking between construction and art areas, gathering various supplies for his latest sea creature or walkie-talkie. I found a book about reptiles and engaged Dan in a cursory review.
>
> "Dan, what do you think of this new book?"
>
> "Oh," he says, walking and working as he moves, "I think the class will be interested in this because we haven't talked much about reptiles yet [in our study of living things in the world's regions]."
>
> We noticed as we were flipping through -- Dan's thumb on the corner of the book flipping ahead of me -- a pictograph on the endpages.
>
> "Dan, look at this. It shows the sizes of the creatures."
>
> "Oh, that jellyfish is 30 inches," he reads.
>
> "Can you show me how big is 30 inches?" I asked. It would have been almost perfect if we had measured between his raised hands. "Dan, how many feet is 30 inches?"
>
> "Well, it's almost three feet."
>
> "Then how many inches are in 3 feet?"
>
> "Well, I don't know, but about 40."
>
> This was a natural, comfortable exchange with Dan, and from it I know a great deal about his sense of measurement both concrete and symbolic.

Here Barbara describes a child whose feet tread the boundaries between the "construction and art areas" and whose imagination roams the territory for a latest project -- will it be sea creature or walkie-talkie, natural or mechanical? Clearly, Dan feels free to select from a variety of subject matters, to see potential connections, and to synthesize them in order to

solve his own classroom problem, one that matters to him, and connects to the world about him. Moreover, Dan moves in his classroom, musing on potential choices as he walks and observes. He perceives no separation between thinking and doing. Barbara herself steps over boundaries. She fluently moves from mundane task to casual conversation to impromptu assessment. Furthermore, she crosses the traditional boundaries between student and teacher roles by asking Dan to assess the worth of a book. "What do you think of this book," she inquires, requiring the child to assess her adult choice rather than the perennial vice versa. In this way, she empowers Dan to make the sort of judgments that will help him begin to recognize quality -- even in his own work. It is through just such a process that Barbara uncovers a major strength in Dan's conceptual thinking, one on which she can capitalize in subsequent work with him.

Four Seasons teachers such as Barbara provide keen insights into the interconnectedness of all facets of schooling. They point the way toward a more conscious, less fragmented, and more integrated way of envisioning teaching and learning and of assessing both. Authentic assessment practices support meaningful classroom relationships rooted in mutual care, curricula connecting school learning to real-world experiences, instruction that centers on students' needs and interests. Authentic assessment practices impel teachers toward the development of more authentic practices in general.

Relationships, Curricula, Instruction, and Assessment: Inseparable Elements of Authentic Practice

Throughout the stories and descriptions of their classroom experiences, Four Seasons teachers highlight their view that student learning flourishes when students know they are respected and valued as real people and when they experience community and kinship in their classroom. Education is fundamentally relational and, therefore, depends on the quality of the relationships and interactions within the classroom. Furthermore, these teachers' depictions of classroom life indicate that students learn when they recognize and make connections between their own lives and the curricula. Creating a learning environment that supports relationships and curricular relevance requires a flexible instructional approach responsive to individual personalities, group dynamics, and specific circumstances and contexts. Placing little faith in generic, generalized techniques, these teachers carefully attend to everyday classroom particularities and the learning potential that underlies them. As Tamara Baren eloquently puts it, "Teachers deal in the specific. They deal in the day to day. They deal in the details of how we take our dream and turn it into life."

Authentic assessment requires authentic relationships, authentic curricula, and authentic instruction. Each of these elements of practice is so profoundly connected to the others that we had difficulty getting Four Seasons teachers to talk about their assessment practices separately. Over time, we realized that these teachers no longer conceptualized assessment in isolation from fuller contexts. Assessments of student work, while based on desired outcomes for student learning, nevertheless emerge organically from the nested contexts of relationships, curricula, and instruction.

Authentic Relationships with Students: What Kids Think and Know Matters. In their discussions with one another and with us, Four Seasons faculty consistently emphasize that authentic assessment could not occur outside of authentic relationships. Repeatedly, we heard teachers talk about the importance of seeing students as whole human beings. We heard them talk about the importance of teachers' also being visible to students as unique individuals -- and as responsive, caring ones (Noddings, 1991). Creating a classroom where relationships thrive involves, once again, teachers who can cross boundaries. That is, they must be willing to invite private lives into the public arena, to honor subjective interpretations as well as objective facts, to care about how students feel as well as what they know. Teachers, according to the Four Seasons faculty, assess students with less insight when they do not relate to them deeply and well.

Phyllis Siwiec talks frequently about her responsibility to know students sufficiently well to know their desires, their interests, their talents, their fears, their weaknesses. Students who feel known, she says, become empowered to act on their own behalf:

> So I think, if there are universal themes around authentic assessment, . . . [one would be] this identification of all the aspects and richnesses of the child . . . and it's also [that] the child's place in the world is guaranteed. . . . They have a sense that who they are means something. . . . They're not waiting for the adult figure to say, "Now sit. Now stand . . ."

Later, she says that a form of intimacy develops between students and their teachers as they undertake authentic assessment:

> When you're doing authentic assessment, you *really* are getting inside that kid. I mean, there's no way that you're not getting to know their subtleties and their movements and their perceptions and their life. You can't help it. It's right there. It's as real as everything.

Authentic assessment demands teacher engagement with students and student engagement with learning. Teachers need, therefore, to know their students well enough to discover what they care about and where their interests lie. In fact, superficial contact with students can lead to misreading their behavior. For instance, Four Seasons faculty spoke frequently about student resistance to innovative teaching practices, at least initially, and a seeming enthusiasm for more traditional approaches. Some students, socialized to conventional forms of schooling, seem to prefer the traditional, more passive approach to learning, one that requires less personal energy, promises "right answers," and provides the occasional facile sense of completion. Phyllis described such students in her classroom.

Last school year, with standardized testing looming in her students' near future, she interrupted her usual teaching practices and gave the students mathematics worksheets in order to prepare them:

> So I bagged my curriculum, and I started doing . . . much more pointed, much more directed [instruction]. We started doing worksheets. . . . And I hate to admit this. There was a certain group that kind of rose to the occasion and said, "Finally, finally, we're doing the math that we want to do." And they were so happy to get worksheets.

Nevertheless, Phyllis is convinced, as were other teachers, that students' seeming preference for mechanical tasks has to do with their longing for a classroom that harbors no uncertainties. Helping students deal with the inevitable uncertainties they will face in their lives requires teachers to be caring, trustworthy, reassuring, and involved.

Traditional schooling frequently seats authoritative knowledge in teachers and textbooks. Students learn to look consistently outside themselves for answers and solutions. With tasks like mathematics worksheets, they recognize manageable, predictable work. They know there is "one right answer" and that they will either find it or they will not; and they see a clear beginning, middle, and end to the learning activity. While instructional materials such as worksheets, can be useful, the over-use of formulaic instructional approaches can mislead students. They can become blinded to multiple ways that human beings might approach problems. Furthermore, they do not have the opportunity to view learning as a highly personal endeavor requiring real personal investment.

When teachers fail to know their students well, students can hide behind an apathetic facade, a strategy frequently adopted to hide personal pain. Joel Kammer tells a story about a colleague who chose relating to a student rather than making assumptions about her:

> [My colleague] was more than usually troubled by a sophomore girl who was (and is) almost entirely unconnected to anything going on in class. She wanders in late, sits quietly, doesn't participate in much of anything, and seems sad and withdrawn. Had she been one of 150 or 160 of his students, he might have sent in a referral to the dean or sent her to the office as a discipline problem to be dealt with by someone else. But because of our block core classes . . . and our efforts at personalization . . . [which keep the teachers' student loads to 80], he instead made time to sit down at a table with her and engage her in conversation. It turns out that she is living in a stunned state of chronic depression. She had been a fairly happy and quite successful ninth grader, and during the summer her mother had been diagnosed with inoperable brain cancer. Her father was devastated, her family was coming apart, and her mother was dying in front of her. She was not even remotely interested in schoolwork, or much else really, except for the all-encompassing reality of her sadness.

Joel realizes that his colleague's intuitive, "on-the-fly" assessment of this girl could have misled him in working with her. His colleague could have concluded she was simply a behavior problem, uncooperative, inattentive, even sullen. Knowing, however, that

assessment must be based on actually knowing the student and trying to see the world from her perspective, the teacher suspends judgment until a relationship develops. Most importantly, the restructuring of the school lessened his student load to 80 students, facilitating his capacity to do so.

This story does not end fairy-tale-like, however; real-life stories seldom do. And there is a risk involved in bothering to know students well enough to bear hearing their pain, especially if that pain cannot be easily alleviated. Nevertheless, Joel believes his colleague made some difference:

> She is still sad, still underachieving. She talks of dropping out of school, and sometimes asks to leave class to go to the bathroom to cry. But she's showing up regularly and she's talking to adults who care about her. And I can't imagine that any of us would have noticed her just three or four years ago [before the school decided to take steps to restructure their school in order to make it more personalized for students].

Teachers like this one actively promote relationships with students, resisting such admonitions as "don't-smile-until-Christmas," which arise from rigid conventions about professional distance and student control.

Lynn Beebe reveals a similar willingness to know her students, including their pain:

> This fall, Jamie, a child who had transferred into my room late last spring from out of state, came to me with a sheaf of papers in her hand, and asked for help in choosing a story for her portfolio. There were many stories, mostly in the style of her first personal narrative, where she wrote about her family and told how much she loved her mom and sisters. Then as I turned the page, another kind of writing jumped out. Here she unselfconsciously, and in detail, [related] the abuse that had led up to her father's removal from the family and their subsequent move to town.
>
> It was clear that Jamie had taken the idea of personal narrative seriously and was beginning to use writing and storytelling to work through those events of her earlier life. Her other work had been so safe that it was dull. This came alive, without being sensational or overwrought. Jamie may still return to her previous style, but now we both know more of what is inside her.

Lynn understands that when schools require students to partition their private lives from school life, they frequently cannot fully integrate their learning. Such a practice also prevents teachers from knowing and understanding outside forces that have the potential to sabotage student learning.

When teachers acknowledge themselves as learners in the classroom, they step from

behind the desk, metaphorically and literally, to close the gap between student and teacher roles. Another Four Seasons teacher, Juliana Kusz, believes that, when teachers are willing to reveal their own thinking and emotions, students have opportunities to learn appropriate and powerful means of expressing themselves:

> It's such a plus for me, as a teacher, being truly engaged. . . . That happens when I'm very involved in the learning myself -- as a participant and not just as the director, motivator, and facilitator. . . . That's when that magical kind of thing happens. So the authenticity has to be on my part, too. . . .
>
> The thing that made me realize that for the first time was when we were working on writing process . . . and the practice was you have to become a writer yourself before you can ever teach it. One of the pets in our class had died. I had really tried to keep this pet alive; I had monumental vet bills. . . . And it was such a moving and sad thing for the class and me, too, that I participated in the writing. We wrote a memorial and lots of different kinds of writing came out and I, for the first time, really wrote with the kids. . . . We really wrote and it was very emotional . . . but what I got from it was that . . . it moved us along because we were all truly engaged in what was going on. There was no falseness about it. I wasn't teaching. . . . I was involved in the same activity as the kids.

When teachers know their students well, they can conjoin this knowledge with that of professional practice. Implicit in Juliana's story is the respect for each learner's understanding of a pet's death and an appreciation of the collective experience of loss. The instructional activity of writing provided an appropriate -- and authentic -- means to process a "real-world experience" as contrasted with a contrived activity. Juliana displays her vulnerability, openly coping with her feelings through her writing. In doing so, she invites her students' self-expression, strengthens their writing, and models a constructive way for them to face and then manage feelings in the face of irrecoverable loss.

When teachers take the risks to establish relationships with their students, they recognize how badly students want them. During a conversation with Four Seasons colleagues, one teacher describes how students responded to her high school's efforts to build genuine community:

> The feedback that we get from our students at the high school level is that they wanted to see their teachers as real people. And they felt that that's where we were making progress because they wanted to know that we were real people. They wanted to see us that way . . . rather than, you know, as in the ivory tower and then talking down to them and all that stuff.

When teachers are "real" and accessible, students become more willing to express genuine thoughts and feelings, the parts of themselves frequently suppressed in traditional classrooms.

In fact, Four Seasons teachers tell us, when students see teachers as whole human beings who are fallible and capable of making mistakes, they are more willing to take academic risks, more at peace when they themselves make mistakes, more encouraged to face those mistakes, and then more motivated to redouble their efforts to correct them. In addition, Tina Lehn claims that, when teachers bring their own passions and excitement to the classroom, "there's something that catches when [the students] feel your emotion." Finally, when students feel that their teachers are no longer speaking from the "ivory tower" but have their feet firmly planted in common ground with students, students begin to feel not only more respected, but more motivated to listen to what their teachers have to say.

Authentic Relationships with Parents: Creating Partnerships For Better Student Learning. When teachers are working toward authentic assessment practices, they need to build active partnerships with the most significant adults in those students' lives, usually their parents. Traditional forms of communicating student progress, such as report cards and standardized test scores, place parents in peculiarly passive roles. Similarly, when parents are invited into schools, they ordinarily hear administrators explaining school philosophies and rules or they hear teachers summarizing students' efforts and achievements over a segment of the school year. Rarely are parents invited to be active partners in their children's formal schooling.

Tony Peake explains that he and his colleagues work hard to build community that includes parents, and that while this is counter to most school practices, it has been worthwhile. He argues that parents, like most adults, make assumptions about good schooling practices based on their own experiences as students. Thus, they can become distrusting and critical if they see teachers implementing new ideas in their children's classrooms. Sometimes, he says, parents need to learn how to read their children's progress, since it may look quite different from the ways they experience it in school. For this reason, Tony and his colleagues send regular newsletters to parents that explain not only what is happening in classrooms, but how and why it is happening. Tony explains that because his school works hard at innovation, parents need reassurance. "We invite parents to hang in there when they see their kids being educated in much different ways than they were educated." The bottom line, he says, is to show parents that "we value them" as vitally interested parties in their children's learning and as fertile sources of information about students.

Susan Hanley concurs. She explains, "I've been creating ways to make it explicit to parents how I'm teaching." According to Susan, when parents understand teacher intentions and their methods for realizing those intentions, they are more likely to become cooperative partners in their children's education. Susan strives to keep parents sufficiently well informed that they can "establish home environments to support learning" going on in her classroom. Hence, homes and schools can occasionally work on congruent learning goals. Susan even actively recruits parents to help in her classroom, sharing her pedagogical expertise with them.

Susan realizes that communication must be two-way, however, and actively solicits parent input. For instance, she has established a parent research group with which she

consults to improve her practice. In addition, each child in her classroom takes home a weekly "brag book" on his or her progress. Within the covers of this book, the child's progress is described and celebrated, and the pages also contain an ongoing discussion about student work between Susan and parents. Susan concedes that some parents respond more than others, but she says, "Everyone's going to write to me, to communicate with me, at different levels. But I tell the parents, 'Even if you don't want to write in it [the brag book], send it back to me because I still want to write to you.'" Susan shares a scrapbook and a portfolio of student work at her parent conferences, giving parents concrete evidence of their children's academic development and progress. Susan recognizes that through such an ongoing dialogue, she is better able to be reflective in her own assessments of students. She needs, she says, parents' insights into and knowledge about their children to have a fully realized picture of them and to find new possibilities for teaching them.

Juliana Kusz, who has adopted a similar process of working with parents, describes the benefits in a conversation with a group of her Four Seasons colleagues:

> I also teach special education. . . . Once a year we sit down with parents . . . at least once a year . . . and talk to the parents about which ways are best for that child's education. . . . I decided this year, I would share my portfolios [with parents]. . . . The child who we were talking about is a child who had -- he was kindergarten age -- who had a lot of difficulty in schools before this and had been literally thrown out of three pre-K classes and labeled . . . and he had difficulty even in the beginning of this year. But this is about May toward the end of school when we're having this meeting. . . . Fortunately, I kept trying, and he had a lot of success. So . . . I'm sitting down opening up the portfolio and looking at it historically with the parents and showing all the things that had happened. And we were sitting together. I was struck by the fact that we were sitting together looking at a review of their child. I was feeling a kinship between us sitting together, the three of us, the father and mother, kind of looking through the [child's work] and that feeling that comes between people as you do that, that wonderful closeness, that understanding. . . . We were talking about it, and bringing out the things the child had done. . . . And [one thing] happened to be a book that this child had written about his mother . . . and I noticed that -- kind of out of the corner of my eye -- the mother was crying. As she was crying, tears were coming to my eyes. And [we had] the whole sense that is so important to me . . . . The most important thing about that assessment is the fact that we all knew together that this child had done really, really well -- exceptionally well.

For Juliana and these parents, the portfolio provides concrete, tangible evidence of this child's development which then enables them to appropriately plan "which ways are best for that child's education."

Authentic Relationships with Colleagues: Building a Professional Community. The development of authentic assessment demands innovation, invention, and imagination. Teachers, therefore, need one another as audiences and as "friendly critics" for their ideas, insights, and implementations. They need serious and ongoing dialogue about the nature of learning and teaching (Darling-Hammond, 1993; Lieberman and Miller, 1992; McLaughlin and Talbert, 1993). Teachers need to see their schools as "centers of inquiry" (Shaefer, 1967) rather than as sites for the latest top-down prescriptions.

A major reason for creating schools as centers of inquiry has to do with challenging taken-for-granted assumptions about competent learners, notions that can become so firmly fixed that they obstruct teachers' ability to recognize divergent yet powerful forms of potential in their students. For instance, many schools stress student obedience, socializing students to accept teachers' judgments of their work. Authentic assessment, on the other hand, suggests that students need to become, with the help of their teachers, directors of their own learning efforts. Linda Dancy states it this way: "Authentic assessment makes kids look at their own skills as a beginning of further growth. In so doing, it promotes self-knowledge." She goes on to explain at least one reason why teachers need to question conventional assumptions:

> Our educational system, which has valued the verbal, assertive child, may blind teachers and students themselves to potential that does not comfortably fit the conventional notion of competence. Authentic assessment continually focuses kids on their sense of need and growth. I see it as self-affirming in its individuality and freeing in its openness to many aspects of personal development.

These are precisely the kinds of issues that need rethinking and that could become better understood through collegial dialogue.

Beverly Hoeltke and Carol White agree that teachers need time to work together and talk through learning issues. In fact, their school, the Key School, builds into its schedule weekly time for teachers to discuss students' needs, curricula, and pedagogy. Beverly tells her Four Seasons colleagues that these meetings create a different kind of professional culture:

> I think there's something to be said about sitting together and talking about [students' portfolios] . . . when you're talking about doing a good job [as a teacher] and enlisting everyone. . . . It's just that team feeling that comes together where there is a school where we all love this kid [the student whose portfolio is being reviewed]. And I don't care if it's good news or bad news, but to sit down together and look at this kid and take the time to do that. . . . I know the answers are in the relationships [with colleagues].

Tamara Baren believes that such collegial conversations need to extend even beyond

school walls and talks about a "local support group" of like-minded educators who support one another's vision for schooling. This group helps her to keep her own vision for education alive, but she longs for a school community that has reached consensus about essential principles of teaching and learning. Having visited a school nearby where educators had reached such a consensus, Tamara describes the impact the visit has on her:

> And, therefore, everything in the school was built to support that thinking. . . . There were group planning times where blocks of people could get together and do their thematic planning and get their materials organized so that those kinds of [activities that they believed should happen] could happen in the most natural and most efficient ways possible. And those schools are amazing to be in.

Tamara yearns for such schools because she sees them as containing professional cultures that empower teachers to do their best work with students (Darling-Hammond, 1993; Lieberman, Darling-Hammond, and Zuckerman, 1991; Little, 1992). In this type of school community, teachers work hard to articulate and refine a common vision for their students. As a result, students and teachers are less vulnerable to mixed messages and, therefore, better able to get about the business of learning from one another.

Teachers need forums built into the structures of their schools where these kinds of collegial exchanges can occur. Isolation frequently breeds routine, stale practices. Without the challenge and inspiration of others' ideas, teachers can easily slip into the same old ways of doing things. Perhaps this is why schools retain nineteenth-century teacher-centered pedagogy despite increasing evidence that it is not working (Goodlad, 1990; Sarason, 1991; Sizer, 1984). Marko Fong, a Four Seasons teacher, calls this "the persistence fallacy," or "just because it didn't happen the first few hundred times doesn't mean that it won't happen the next time." It is teachers like the Four Seasons teachers, talking to one another and then extending that conversation to the public realm, that may help educators disabuse themselves of this fallacy.

In order for this to happen, however, policy makers and the general public must come to see the essential role that relationships play in schools. Given this country's educational history, the mechanics of teaching and learning are likely to be valued and privileged over the relational processes of school communities (Grumet, 1988; Noddings, 1986). This may be one reason why so many students in this country, feeling alienated and sometimes even invisible, are not reaching their intellectual potential. Four Seasons teachers have found that when students feel cared about, they care more about their learning. Their parents must be able to see that they have a significant role in their children's education and then to have vehicles for living out that role. Moreover, teachers need challenging and inspiring conversations with their colleagues in order to free their imaginations, extend their knowledge base, and improve their profession.

Authentic Curricula and Instruction. Education is not solely about relationships, however. It is also about choosing the content and processes of student learning. Authentic curricula

require content that is meaningful for students, responsive to them as individuals, and connected to worlds outside the classroom. At the same time, many states mandate specific curricular content for each grade level, providing as their rationale the need for schools to teach a common culture. Negotiating pedagogical paths through these potential mine fields is a continual challenge for Four Seasons teachers. In addition to knowing traditional subject matter well, these teachers say they also need to constantly search the contexts of their students' lives, their schools, their local communities -- the world around them in general -- for ideas, issues, facts, and concepts that might spark their students' interests and prepare them for dealing with contemporary life.

Some teachers have managed well. Beverly Hoeltke, for instance, practices a kind of pedagogy that, while setting the course for learning, resists determining the ultimate destination of that learning. She begins her story by explaining how she creates opportunities for students to see and think in new ways:

> I have a multi-age classroom -- first, second, and third grades -- and we've been learning from themes. This particular theme was global perspective. And the first thing that we do is we just sort of talk about what does that mean . . . what is global perspective? So we read *The Three Pigs* and then we read *The Real Three Pigs* from the wolf's perspective so that [the students will] understand perspective.
>
> And we talked about the world and then the class made the decision that they wanted to each take a country in the world, and then they wanted to do a book about whatever their country is. So this one team decided to do China, and they were extremely motivated in that I could not bring in enough resources. We had people from their countries coming in on Wednesday afternoon programs and things like that. It was like I couldn't do enough and so they literally, really, were bothering their parents, "Mom, you've got to bring in this. Oh, I've got to have that." And so, when they developed their book, it was really very, very rich.

Beverly underscores the importance of offering students encouragement to follow their developing interests as she focuses on a particular child who contributed to the above group:

> At the end of the theme, they have to do an independent project. And this one child, Karen, when she got up to tell about her project -- and her group's country was China and they had done these wonderful drawings and that type of thing -- she couldn't decide on exactly what focus she wanted to take so she tried to give to the rest of the class the culture. So she dressed in costume. And she came in and she had all these wonderful drawings. She is a wonderful artist. And she had a dragon in the background, and she explained how she had seen different textures within the Chinese drawings. And . . . it was in great detail. It was wonderful . . . she talked about the reds and the

> greens and everything. She explained in great detail every reason why they were there. . . . But that wasn't enough either. She brought in . . . she had cooked herself -- and she's seven years old! -- this [Chinese] meal which she proceeded to feed to the entire class.

Beverly's story continues with Karen choosing to study the artist Yani, a young Chinese girl and budding prodigy. As a result, Karen discovers new ways to express herself:

> She did a great study of the Chinese artist, Yani. . . . And then she did these watercolors of Yani's work . . . as if she were in China. . . . And then Karen took Yani's style and subject matter and developed her own paintings. And they were just absolutely gorgeous. I mean, everyone in the building would stop at the display when they got to hers just to admire them. "Oh, who did these?". . . . So it's amazing to me *always* how children will take something and if allowed . . . to develop, they go way, way beyond your greatest expectations.

Beverly's account of this child's learning provides a glimpse into an instructional approach that reflects students' needs rather than a pedagogical ideology or a rigidly conceptualized curriculum. The student's intellectual curiosity and energy, as well as the teacher's predetermined goals, set the direction for learning. By following her interest in China and closely studying a Chinese artist as a child, this student began to develop standards for her own artistic efforts. And eventually she implicitly shared these newfound standards with the entire school by displaying her work.

Beverly draws on a range of teaching techniques. For example, she uses cooperative learning, but also engages students in individual projects. She takes center stage on occasion to read to students, but also places students in that position as they give presentations. Although she ensures focused and shared learning through curricular themes, such as the one on "global perspectives," she allows students to make choices and to pursue areas of interest. Beverly wisely allows room for her students' developing passions, such as this child's fascination with Chinese art and, thus, clears the way for them to find their own intrinsic motivations. In order to expand her students' horizons, she welcomes the outside world into her classroom via the study of other countries, but she does not do so at the expense of her students' constructing their own understandings. The student she describes may have learned a great deal from a Chinese artist, but, in the end, her new artistic expressions were uniquely her own.

Perhaps one of the most powerful messages in Beverly's story lies underneath her narrative. How had Karen's presentation affected the other students? What were the children in Beverly's classroom learning from one another about quality work? Certainly the presentation sets a kind of standard for subsequent presentations, but a standard all the more powerful because it arises organically from the children's exposure to classroom interactions with subject matter and with each other.

Tina Lehn's story about very young students learning from their interactions with one another and with books illustrates how they actually begin to make critical judgments:

> I teach first grade, and we're very much involved in literature -- wonderful literature. And one of the things that came up in our classroom last year was that the children discovered [award-winning] books. And we began to make a display of these books in the classroom and look at them, and then the new winners would come out. And, you see, we had looked at maybe 20 books from the previous year and the children had figured out which books they thought deserved the award. And when the actual winners came out last year, they were very upset. They're six-year-olds! They felt that the book that won the award and the honor didn't deserve it.

Tina explains that the students' dissatisfaction with the official panel's decision fueled classroom discussions that eventually led to the students' articulating criteria they believe might better justify a book award. In the process, they developed categories, including the possibility of giving separate awards for illustrations and text. After much deliberation, the class came to the rather sophisticated conclusion that an important criterion involves the author's ability to meld text and pictures into a coherent whole.

According to Tina, the children's excitement about building criteria went on for several days and generated more conversation:

> They developed a list and then they began to gather together some wonderful children's books, and they decided that they would rather, if possible . . . not include those that had already been given an award, but books that they felt *should* have received an award.

The children decided that they wanted to present a class award. However, even this did not end the process. Although the children could come to some consensus about a general list of criteria, they all had slightly different emphases or perhaps an additional criterion or two that did not fit into the class list. More discussion ensued:

> They began to have real difficulty about coming to an agreement on what book they should choose. And then they began to get an appreciation of how difficult it is to pick [an award-winner]. So we sat down and processed through it again and said, okay, we've got a problem here. And we're not coming to agreement on this. So, as a class, then we decided, you know what? We don't have to give a [class] award. We can have a Jason Award or a Shelly Award.

Tina's story exemplifies the power of the assessment process to deepen classroom activities and student learning. In order to develop these criteria, the students engage with the subject matter, in this case, literature, so as to extract general principles of excellence, or

standards, from the specific examples of the texts they analyzed. Such an experience has the potential to influence how the children approach their own writing. If they internalize their criteria, they will have new bases for evaluating their own work. This community activity, one that allows for both consensus-building and dissenting opinion, illustrates the challenges involved in developing criteria for quality work.

Like Beverly and Tina, Betty Crytzer places students' desires and interests at the center of her curriculum. She describes how her eighth-grade students' interest, together with her professional guidance facilitated the creation of a service project:

> And this particular class brainstormed . . . "We want to do some real work. We want to do something that'll get us all involved in people's lives instead of just talking about it and writing about it."

Betty's students chose to explore a social justice center in their small town, a center that provides food and clothing for those who cannot afford necessities. After being contacted by Candace, one of Betty's most enthusiastic students, a woman from the center invited the students to visit:

> So I took them down one Friday morning and they distributed clothes, they helped people find clothes, they bagged groceries, they met all kinds of people, and all -- *all* of the students were involved in this. It was a real eye-opening experience for them.

When the students returned from the center, Betty asked them to write their reflections about the experience. Their interest now thoroughly piqued, the students considered how their efforts could be most useful. Having "met a lot of homeless people" and heard "their many stories," Candace became upset that many of them lacked basic hygiene products. After talking to people who worked in the center, Candace decided to propose a solution and persuaded her classmates to help address the problem:

> As a class, they decided to organize a teamwide campaign to collect needed items. The students advertised, got other students and teachers involved and they were on their way. . . . As the weeks went by, Candace suggested that the students go to the center and volunteer their services on Saturdays. Several students agreed, and again, they had to contact the center, set up schedules, and people began to sign up. This was a real commitment on the part of these busy students who were so involved in many different activities.

The students became increasingly committed to the project as their awareness of the social problems deepened. One day, a group of girls from the class witnessed a particularly poignant incident:

> On one occasion, when a group of girls were working at the center, a mother

> with three children came in. They were specifically looking for clothing. The oldest girl was thirteen. She looked on all the racks and was unable to find appropriate clothing for herself. After awhile, the girl broke into tears and ran out of the center. . . . The girls had watched this sad scenario and they came rushing to me and said, "We have to do something about this situation."

That "something" became an effort to involve the entire school in a drive to support the center, including stocking it up with clothes that teenagers might wear.

As their project unfolded, Betty's students gave speeches to other classes in the schools, created advertisements, made posters, wrote reflections, and organized a schoolwide campaign. They learned about organization, about community relations, and about constructive self-expression. Candace, in particular, "a child who had everything" -- a lovely home, well-to-do and loving parents, a safe and happy life -- learned a great deal about other people's lives. She also learned that she has a passion for working for the welfare of others. In addition to Candace, however, Betty says the entire class "learned a great deal":

> The social and emotional growth that I witnessed was amazing. I do not believe these valuable lessons could have been learned so personally from a textbook. I also believe that we, as educators, must provide opportunities for student involvement in the real world, as they prepare to make a difference in the confusing and complex world in which they live.

A powerful learning experience emerged because Betty and her students together co-construct the curriculum. As one Four Seasons teacher, Fran Powers, puts it, Betty "wrapped the curriculum around student interest." When her students became engaged, far beyond her expectations, Betty used their experiences as the foundation for further learning, encouraging them to reflect on their experiences, and providing opportunities for them to develop and apply useful skills, including oral and written communication. At the same time, however, she never abrogates her clear responsibility as the adult guide in their journey, monitoring their learning through reflective writing, discussions, and ongoing observations. When Betty reads her students' papers and listens to their comments, she assesses not only individual student progress but also her relative success as a practitioner. An authentic measure of the power of such an approach is the degree to which the students apply their knowledge beyond the school walls. When Betty sees that some students have begun weekend volunteer work and a rethinking of eventual career plans, she knows the project has had profound effects.

When Four Seasons teachers talk about their successes with authentic assessment, they frequently mention reaching that one student who seems to them elusive, unreachable. For instance, Mary Stuart recalls an incident regarding Juan, a junior in her American Literature class. Juan, whose family had immigrated from Mexico, caused little problem in class, but he held himself sufficiently aloof that Mary had to intuit his relative involvement. One thing

she knew for certain, however: Juan was not truly engaged in classroom writing assignments. That, says Mary, changed:

> I teach American literature as part of a junior year Humanities course. We were reading *The Adventures of Huckleberry Finn* as part of a unit on the Civil War and race when I gave a writing assignment which asked the students to choose from among several options to write an autobiographical piece. In the manner of Huck's descriptions about the Mississippi River, one choice was to write about a special place. The assignment was to develop the student's use of a strong point-of-view and sensory images to convey the meaning of this special place. Juan always seemed to be involved in the work we did, but his actual productivity was spotty at best. In his baggy pants with silver watch chain, he would give me a benign smile as if to belie that armor his clothes created, set down his briefcase, and begin to write. Many days, even weeks, after the assignment was due, Juan turned his in. I tend to nag when it looks as if a student has gotten a start on something, so Juan finally gave me his story. It was about his village in Mexico. It was a Sunday morning and kids playing soccer were raising dust in the street. As he walked along, he heard the players, felt the dust and sunshine, saw the bright light, smelled his grandmother's beans and fresh tortillas. He provided a glossary for the Spanish phrases he included. It was quite wonderful. It was so beautifully done that I didn't want to write anything on it, so I used post-it notes to write my comments. I told him to take it home and share it with his family and to keep it for his portfolio and even afterwards for himself.

Mary's story reveals what she believes about standards for both her students' and her own work. For instance, it is not enough to gain a student's cooperative compliance in the classroom. Mary wanted to see Juan's active and productive engagement in the learning process. Although Mary sets deadlines and prefers that her students adhere to them, she is willing to rethink this widely adopted criterion for quality work -- punctuality. Instead of insisting on his timeliness, Mary nudges Juan to finish what she knows he has already begun. In addition, by making a place for autobiography in the classroom, Mary communicates to Juan the importance of his lived experience, his subjective meaning-making, his personal knowledge. In doing so, Mary creates a space for Juan's culture in the curriculum. Juan becomes the expert, relating sights and sounds different from those experienced by many around him and writing definitions for Spanish words that his classmates and teachers might not understand. Above all, Mary celebrates this story because her student finds a means for personal self-expression. The writing that emerges is far different from what he had produced before:

> Juan made terrific strides with his story because his voice shone through so clearly. Like many students, he had previously tended to write what he thought his teacher wanted to read. This time, he committed himself to write about something that was genuinely important to him, and he worked to write

about it in his own way. This was a breakthrough for him because the work he was doing was personally meaningful.

Perhaps Juan's "breakthrough" is a direct result of his teacher's deep respect for his thinking and writing. Mary refuses even to write on Juan's essay except through easily removable post-it notes, thus emphasizing to whom his work actually belongs. Later, she encourages Juan to publish his work in a student literary magazine. Thus, Juan learns that writing in his own voice produces work of quality and that standards have less to do with compliance and obedience than they have to do with personal engagement and hard work. Because his writing is shared first with his classmates and later schoolwide, other students learn this lesson as well. As Mary puts it, "It was clear to the other students with whom he shared his work that he had written a fine piece." Mary ends her comments by underscoring how important it is for all students to find ways to authentically be themselves in the classroom and how important it is for her as a teacher to help students "find their own voices."

Just as Juan finds his voice in meaningful assessment activity involving writing, Bil Johnson's student, Mimi, finds hers, at least in part because Bil's instruction and assessments require students to think for themselves. Bil describes the design for a unit, one that, he thinks, "embeds assessment in the design":

> This was an interdisciplinary course (Western Civilization) so there was an art teacher and an English teacher involved and, again, my two student teachers. . . . We wanted evidence that the kids were conversant with historical readings that they had done, were conversant with the literature they had read, and were conversant with the art we had studied in a way that . . . showed [higher order thinking skills] . . . that showed synthesis, that showed evaluation, that showed application. And what we asked for -- the context we put it in -- was very contemporary. It was presenting them with the Bosnian situation. We gave them quite a bit of background reading on that and maps. . . . We asked them to write a . . . letter to Clinton to give him advice . . . about what to do in Bosnia. But they had to write it from three perspectives. They had to actually write three letters to Bill Clinton, one was from a historical figure's point of view, one was from a literary figure's point of view or a character in literature, and one from an artist's point of view or a character in a piece of art. So, if they picked Alexander the Great, it would be Alexander writing to Bill Clinton about how to deal with the Bosnian crisis. And . . . it would have to show that, in fact, the kid has some understanding of Alexander's world view and how Alexander dealt with conflict and then how that might be applied to a situation like this.
>
> We had given them readings throughout . . . the semester, so they could pick and choose. . . . We didn't limit anyone. We did tell them, aside from the written piece, we would take three days [to share what students had learned],

> and one day we would have a Socratic-style seminar based on their letters as historical figures. So that they'd have to be familiar with all the stuff, again, that we'd read [in order to ask intelligent questions on each other's work]. Certainly, they'd have to represent their [own] point of view. . . . [We told students] to be prepared to ask and get clarification and to make [each other] justify what they were saying. So that was the set up. . . . They knew they had to do the writing and then they had to be prepared to defend it in the discussions. But also we set it up as a Socratic seminar because we wanted to probe deeper. . . . We wanted them to get to [ask] . . . were these points of view from these historical perspectives valid? And how do you -- is it possible to -- resolve a crisis like this?

Bil's design incorporates a set of readings that he and his colleagues, because of their greater experience and education, think the students should encounter. Nevertheless, students also have the opportunity to follow their interests within the parameters of these readings. Additionally, this design requires students to apply historical knowledge to a serious contemporary problem. Finally, given the responsibility to defend the content of their letters to President Clinton, they also have to be able to articulate and defend an intellectual position.

According to Bil, the particular students he describes came to see clearly how complex the Bosnian situation is: "They saw the roots of the problem were cultural and religious and political and historical and overwhelming." Nevertheless, eventually they were able to cope with attendant ambiguities, and as Bil explains, they produced "some of the best stuff I've ever seen go on in a classroom."

In this context, Bil's student, Mimi, learned to pursue learning for its own sake, and in the process, began to construct informed opinions. When Bil first met Mimi, she was just one more student trying to make top grades. He describes her:

> Well, she's an interesting kid because she's bright and she wants to do well . . . which is in the culture of [Mimi's high school]. She wants to be the "A" student . . . but she didn't put the work into being an "A" student in terms of effort. . . . She doesn't quite see what it is that distinguishes quality from proficiency, we'll say.

Nevertheless, through her work on her project, Mimi learned that quality work emerges from entertaining a variety of perspectives through texts and conversations. For instance, in Bil's account, she turned to her classmates for in-depth discussions or because she recognized their developing expertise in an area she felt would enrich her understanding. She also saw revision in new ways. Instead of obtaining her teachers' feedback and then revising her work in the most expedient, even superficial, ways, she pursued others' feedback with energy, weighing their perspectives, integrating those she found valuable, and working hard to strengthen her writing. As Bil puts it:

> She was really using other kids in the most constructive way. She wasn't just coming to me and saying, "Help me. Give me the answer." She got other [classmates] who were struggling with the same kinds of things, but other people who seemed a little bit ahead and would show up with . . . them. . . . And we'd have these little discussions about what was going on. And, as I say, in coming in with a draft of a work she'd say, "Here's the next one, you know, what do I really have to do? I know it's not there yet."

Clearly, as Mimi recognizes that her work is "not there yet," she begins to develop her own criteria for quality work.

It is this ability to make her own evaluative judgments that pleases Bil the most regarding her academic development. She learns to pursue the perspectives of others, but she does not simply assimilate those perspectives. Rather, she considers them and draws her own opinion. This, above all, Bil sees as Mimi's triumph. With tears in his eyes, Bil describes the moment he recognizes how far she had come:

> Well, her written exhibition was just the best piece of writing she's ever done. And [her paper], aside from that, was technically wonderful and I remember . . . feeling flushed and I almost filled up because she found her own voice in her writing. And . . . it was one of those moments [that captures] the reason you get into teaching. . . . And I remember saying that to her. I remember saying, "You found your voice. You know, you found your voice." There was nothing artificial; there was nothing stilted; there was no use of any other source that wasn't filtered through this kid's thinking.

Bil's story exemplifies an approach to instruction that helps students to see multiple sites for information and authority. Students can call on one another and on their teachers. They can consult books and the opinions of other adults. In the end, however, students learn that their own ability to think and to express themselves matters more than anything else.

Authentic Practice to Authentic Assessment and Back Again

The above stories from Four Seasons teachers capture these teachers' commitment to developing relationships in their classrooms so as to enable students to develop standards for critiquing, improving, and celebrating their own work. The stories portray teachers working to de-center themselves as the sole authorities in their classrooms so that their students will become increasingly capable of thinking for themselves. In the process, these teachers teach their students respect for their classmates, and respect and tolerance for a diversity of opinions. Four Seasons teachers, eager to display their students' academic achievements, believe that school cultures should be saturated with student-made exemplars of quality academic work. Such authentic practice provides the context for assessing what matters about student learning.

In the teaching narratives above, assessments of student work emerge organically from meaningful learning. For instance, Tina, the teacher who managed to get first graders to think about their criteria for literature, finds multiple opportunities for assessment, including observing her students' thinking as they brainstorm criteria for good literature. This, of course, teaches Tina a great deal about how her students think and feel about reading, invaluable information for subsequent instruction. As the students decide to give individual awards for books, Tina designs a special culminating project for them. They make videotapes presenting their award-winning book, describing its strengths, and offering reasons for their choices. Tina moves in her assessment practices from individual students, to the class as a group, to her own practice, and then back again.

And so it goes with Mary and Bil, who work with teen-agers. Mary helps her student to see the worth of his writing by showing him a way to have it published. Bil empowers students to know their own minds by designing assessments, like his Socratic seminars, that require students to persuade their classmates of the worth of their opinions. Both teachers work to provide assessments that set as priorities the development of mind and voice so that students can begin to find processes for decision-making and opinion formation, eventually leading to a sense of internalized authority.

Phyllis Siwiec tells of an incident in her second-grade classroom when she must shift gears to spark the flagging interests of her students. Phyllis describes this day as especially hard because it follows a very successful unit on the potential for matter to change from solid to liquid and back again. One project in this unit included the making of ice cream. After some time, however, excitement over the ice cream project wanes, and the students appear to lose interest once again. Hoping to recapture her students' enthusiasm, Phyllis decides to take her class on "a two-minute walk to a huge waterfall" to see that "some of it was frozen and some of it was still running free." The students respond eagerly. Despite harrowing moments, during which one girl seems oblivious to the dangers of the falls and other children are hard to control, Phyllis judges the field trip highly successful, but she tests that judgment by assessing her students' responses to the experience. She asks the students to draw a stetch of their observations of the falls and "the drawing was superb," capturing details that reflect keen observation of nature. Phyllis notices that, with the exception of one child, the students "were absolutely engaged."

Next, she takes the students through a group reflection:

> My question was, "Let's describe the falls. What did we see?" And they started to talk. They *saw* this contradiction: The waterfall was falling and it was frozen at the same time. How could that be? So then they started to talk about that and there were incredibly wonderful, profound observations about nature and science . . . the fact that the waterfall was running free because of the speed of it, because of the quantity of water that was going over. I mean, it was just really wonderful. And then we had five minutes left. I asked, "How is the waterfall today like ice-cream making?" And they gave 19

incredibly wonderful answers. There wasn't even one who [failed to respond].

Clearly, authentic assessment casts teachers as learners themselves. They must constantly "read" their students, observing them carefully, probing them to find their interests and strengths, checking to see how learning activities have affected them. They must also consistently assess their own practices, reinventing and refining them as they study students' responses and work samples.

Some teachers, like Carol White and Beverly Hoeltke, write their curricula after students have already experienced them in the classroom. Because they are willing to improvise with and depart from original plans, they cannot see written curricula as the final word. Instead, they see such materials as guides, as one approach among a universe of possibilities, as always in need of tailoring to meet individual students' needs.

Four Seasons teachers tell us that they see their work as continually in progress, as never perfected, and as always open to inspiration from the students themselves. Juliana Kusz claims that inspiration usually emanates from students' being allowed to follow their own passions. For instance, Juliana remembers a child's drawing of an aquarium (an undertaking she initially thought might be a waste of time) so detailed and imaginative as to set a new standard for the entire class:

> I wasn't sure what he was gaining from this. He was interested in just having fun . . . and he came in and drew this wonderful picture of an aquarium. He [was] so proud. . . . For me, it was that engagement [in his own interests] that made me go further along. I was inspired by what he had done because [it] was so meaningful to him. All the other kids [were] saying, "Oh, look what he's done. . . . Look what he could do." Then [they began] the kind of testing to see what they could do, looking through his perspective and then finding another one for themselves. [We were all brought] to another level. . . . We all shared in that communal awareness that there was a spark in somebody else and then it sparks us, too.

Teachers who conceive of their work in this way rankle at top-down initiatives to mandate curriculum or to impose high stakes standardized testing. No standardized process can ensure the learning of every student in every school. Standardized processes, by their very nature, level unique qualities for the sake of generalized characteristics. Perhaps there is no approach anywhere that can reach every student, but these teachers want the latitude to try.

Chapter Three

Areas Under Construction: Roadblocks and Detours with Authentic Assessment

Despite the many successes that Four Seasons teachers shared with us, they are the first to explain that their work involves some false starts, some difficulties, some mistakes. Like many experienced teachers, members of the Four Seasons faculty have seen educational reforms and innovations come and go, along with attendant promises to revolutionize teaching and guarantee student learning. The Four Seasons National Faculty, while committing themselves whole-heartedly to principles of student-centered education, nevertheless resist making unrealistic claims. The only way to make long-term changes in education is to be honest about the processes, including the inevitable missteps. Although these teachers are strong advocates of authentic assessment, they do not hesitate to say that they are still struggling with both conceptualizations and implementations of it. Dedicated in their attempts to establish new teaching practices, they are willing to share their struggles along with their successes.

For instance, Tina Lehn, despite her success in encouraging students to love reading and to think about the quality of books, feels special regret when she remembers the occasional child she may have failed to reach in her classroom. One of Tina's stories involves just such a child, accompanied by a difficult parent. Although Tina strives to foster strong partnerships with her students' parents, occasionally harsh realities in human relationships challenge her intentions:

> But the [stories] that come very easily were my tales of woe over one child . . . and [they] knotted my stomach all over again. . . . The ways that I did not . . . handle or get to know or allow that child to express [himself]. . . . One in particular, a little boy, Peter, I had this year whom I had difficulty with the whole year long, not really the child but the parent. And it's interesting the story was around the same story as my success story . . . around the choosing of books. And we locked heads on that.
>
> He had a need to always choose something other than what . . . the class had decided . . . would be the task. He needed to stand out from the class. He needed to be the isolate. And he just refused to choose a book [from the criteria the class had set] to blend picture and text and come up with a class award for that. And he chose to stand outside that. And so he chose a book . . . a very inappropriate book [for the first grade] . . . that he brought in from home that was just text. . . . And I think the mistake -- and I've thought about

it a lot because I felt very badly about it -- [was] we really locked heads over it.

. . . The awful part for me . . . it was that I tried again, once more, with this kid to control him and to not allow him the space because I was so busy proving to his parents that allowing him this 60s freedom was destroying the kid. So I was feeding into that. So, instead of standing back, [and saying] what the heck! Who cares? But I needed to get into a place where I could see . . . where he could show me that, yes indeed, he did see that this was what the class had established as the criteria. And I backed it with my need to help him become socialized and my need to push him against the wall. And, and I just feel awful about that.

Tina's courage in telling this story to a small group of her Four Seasons colleagues quieted her listeners. Tina explained later in her conversations that Peter's father, early in this conflict, stormed into Tina's classroom to lecture her on his child's civil liberties, particularly his freedom of speech. The father also let Peter know of his disapproval of Tina's judgments and his intention to intervene. Tina keenly felt the wedge driven between her and her student. But she refuses to excuse her own culpability in her account. She recognizes that, while she had a legitimate concern for Peter's socialization into the group, she may have stubbornly overreacted to his quest for individuality. By exposing her own issues of power and control as a teacher, she helps her colleagues examine their own. Authentic assessment, after all, means reversing long-held traditions regarding teacher authority and creating whole new relationships between teachers and students.

In telling this story, Tina's candid analysis lays bare issues every teacher encounters, particularly those using the student-centered approach demanded by authentic assessment. When teachers truly allow student choice in their classrooms they may feel initially as if they have opened a Pandora's Box of new problems.

For instance, to what degree should teachers allow students autonomous and independent self-expression?

How important is it to teach them the value of community standards?

How do teachers negotiate the tensions that emerge from centering instruction on students, all of whom are not alike?

When should a teacher insist on students' complying with group consensus?

When should a teacher allow room for dissent?

How much of student learning depends on lone efforts and how much on relational processes?

How can teachers see the difference between teaching students principles and sacrificing students to principles?

How can students and teachers create criteria for quality work that embrace both individuality and diversity?

At a very practical level, how can teachers separate difficulties and challenges they experience with parents from their subsequent attitude toward and treatment of students?

These are the issues that make teaching among the most demanding of professions. Although Tina explains that she does not feel there is a happy ending to this particular story, she does believe she has learned from it. By sharing her story -- even though she includes her mistakes and some painful recriminations -- she allows it to be instructive for her colleagues as well.

Bil Johnson captures another, no less thorny, set of dilemmas in a story about his struggles to reach another seemingly unreachable student -- this time in a ninth-grade classroom. Bil, particularly ingenious in his ability to design assessments embedded in the processes of learning, talks easily about the importance of centering education on students' growth and development. He thinks back on his career and winces at how teacher-centered his practice used to be. Moreover, he recognizes that, no matter how much a teacher might love his or her own ideas and how well he or she can express them, a teacher's passion provides no guarantee that students will become engaged in those ideas. Bil, in fact, laments the fact that walking the corridors in most high schools means overhearing bits and pieces of lectures, spoken by teachers who perhaps love their subject matter but whose words nevertheless fall all too frequently on deaf, uncaring ears.

Ironically, Bil, despite his progressive methods, tells of falling into the same trap that ensnares many lecturers, even the most brilliant and animated. Teachers can become so enamored of their own ideas that they temporarily forget their students. For instance, Bil created an inventive project to help his students see the continuum between past, present, and future. He even created an "artifact" for the students. A newspaper clipping from a future society falls into present time back from the future and into his students' hands. Burned and frayed at the edges, this newspaper article from the future compares the United States of the twentieth century with life in Medieval times, and then contrasts both to its own time, which it celebrates as a new Renaissance. Bil asked his students to think about what they had learned from history regarding the Middle Ages and the Renaissance, consider trends of the present, and project what the future in the United States might be like if this fictional journalist's analysis is correct. Believing that students need conceptual frameworks, Bil gave his students a list of social institutions, such as government, religion, education, and the economy, through which to filter their thinking. Bil explains:

The project was designed to serve a number of ends. One was to help the kids

kind of review some content stuff about the Medieval period and the Renaissance . . . and to look at what was maybe most important, most essential to know about these periods, particularly . . . the institutions of a society. And also to compare and to see if they recognize how things change. That was one of the things that we were trying to get them to look at: How do things change from one period to another? And the way we wanted to do that was to have them [the students] compare the Medieval [period] to the Renaissance and look for the changes and look at our own society in 1993 and then project ahead to 2043. So there was a prediction element. Could kids predict? . . . It's a tough assignment. . . . It takes a certain amount of creativity and imagination that I thought . . . would be a lot of fun.

Later, Bil tells about one boy, whom he describes as a "Golden Retriever of a child," sweet and eager to please. Unfortunately, this boy, representative of many others in the class, does not find the project "fun" at all:

> [He is] a wonderful kid . . . someone . . . that I wanted to inspire. . . . I really wanted him to have fun with this . . . really push himself in a way that he enjoyed . . . if there's not a contradiction in that. And I thought that this [his instructional design] was a great vehicle for that.

Bil's student, "a worker," simply does not "get it," according to Bil, despite valiant efforts on both their parts:

> He never did seem to take off on his own with it. There always was someone working with him and he always seemed to be asking the same questions again and again. . . . He was asking for right answers, [like] "Would this be okay? . . . Does this sound okay?" And [I would say,] "Do *you* think that's how it's going to be?" And . . . he said, "Well, I don't know." And I said, "Well, *none* of us know." . . . And [then] we'd go through the whole thing: What was the change process, what caused that [change], and we'd look at the factors. And we'd look at how governments maybe evolved or how territory came into play or how the Church [affected changes]. . . . And I'd say, "Okay, now let's look at the world today. What do you think?" . . . And then you might prompt him with, "What about the NAFTA agreement or the European Economic Community? . . . and the idea of larger organizations than the nation state? . . . Is that possible?" And he'd kind of be like, "Well, it's *possible* but. . .". And it was like he just couldn't *see* it really happening. You know, even if you said, "Well, just make it up; invent it! How might that work if Canada, the United States, and Mexico decided to have one government?" He just couldn't quite make the leap. You know? And this was the *worst* part, the worst feeling, that you know you're supplying him with the answer . . . that it's not going to end up being *his* creation but it's going to be his reworking of what your conversation was with him. And I

> think ultimately, you know that in some way shape or form that was what it was.

Bil's student, frightened by the difficulty of the assignment, frantically seeking his teacher and classmates out for help, does indeed hand in a paper that is, in Bil's words, "pedestrian" and "mundane." During the process, Bil sees his responsibility to "hang in there" with the student but he muses in the process, "How much do you coach if you want it to remain their work?"

Eventually, Bil realizes that this student's obvious struggle is symptomatic of problems with his instructional design. He analyzes those problems candidly:

> I think developmentally I bit off more than they could chew. And I think that's what *I* learned from it. And we talked about it afterwards. The kids and I debriefed and critiqued like mad. And that's what came out [in the students' comments] a lot, "I just can't *do* this." I think what I lost sight of was, because I loved these kids, and because they had done some . . . exceptional work prior to this. . . I think I might have lost sight of the fact that these were 13, 14, and 15 year olds.

As Bil talks this through, he sees more and more clearly how he became so intrigued with designing this unit that he lost sight of other considerations. He explains this:

> I love designing curriculum with assessment embedded in it and so the challenge of that is something I get very caught up in and . . . particularly in the last few years, when I feel like I've gotten a much better grip on it and a better view of how to do it . . . that there's a real danger in it. . . . You can go too far in enjoying your own work [until] you're losing sight of what's the purpose of it . . . the kids!

Bil talks later about the irony of his story. He, a teacher espousing student-centered schooling, leaves his students behind at the very time he is trying to imagine constructive possibilities for them. Those committed to developing forms of authentic assessment, he says, can fall into some very traditional traps.

Mary Stuart, another experienced high school teacher, worries that in the general haste to replace traditional assessments with authentic ones, some of the values of traditional education may be sacrificed in the process. Mary realizes that student-centered teaching means multiple approaches to teaching and learning. She also realizes that high school teachers have for too long depended on lecturing, question-and-answer, and formal discussion as primary methodologies. Nevertheless, she does not like to hear oversimplifications about what students need. For instance, she has heard claims that classrooms involved in "meaningful work" should be constantly abuzz with group activity and excitement. She muses that some of the rhetoric surrounding authentic assessment might result in a wholesale

dismissal of teaching approaches that, she believes, have stood the test of time. What is "meaningful work?" Mary asks. Are movement and noise in the classroom the only indicators it is going on? On the contrary, Mary maintains:

> If my classroom is dead silent because they [the students] are all reading, then that's meaningful work. . . . And that they're reading and revising . . . and struggling with whatever they're struggling with in their writing. To me, well, that's meaningful work. And yet, there are people who keep saying, "Well, how does that relate to the real world?" Well, it relates very deeply to the real world if they're writing about issues that are important.

What is, after all, the "real world"? How does one prepare students for a real world containing multiple possibilities for perceiving and being and acting? Mary recognizes the connection between learning and doing, but she wants "doing" not to be oversimplified in a rush toward change. "Doing" can mean quiet reflection, intense reading, solitary problem solving. A great deal of doing can occur in the quietest of classrooms. Mary longs for long and serious dialogue about standards that will prevent yet another rush to judgment, another giant sweep of the pendulum.

Marko Fong, also concerned with the occasional clash between reform rhetoric and the hard realities of classrooms, wrote an especially poignant story. He shared this story by writing it on-line for the Four Seasons computer network where his colleagues could read it. Although the story is lengthy, we include it in its entirety because it captures the ways that social ills, like racism and classism, can thwart the best of teacher intentions. Marko begins his story by explaining that he wants to make connections between school learning and the outside world. He notices that:

> In 1992, two major news stories had some impact on my seventh graders. The first was Magic Johnson's retirement from the Lakers. The second was the nationwide night of riots which broke out after the Los Angeles police officers who were videotaped beating Rodney King were acquitted in criminal court. After each became news, I had taken the time to discuss the incident with my class. I still remember my administrator's concern that I send a parental advisory home before talking about either AIDS or sexuality in the classroom. When the discussion took place, television had already left my students somewhat jaded on both issues. They knew all the ways in which AIDS is transmitted, the fine differences between a diagnosis of AIDS and being HIV positive, the details of Earvin Johnson's multiple contacts, and even some obscure rumors which I'd never heard. In the Rodney King matter, a group of teachers met with concerned students and passed out black arm bands.
>
> While I agreed with the arm bands, I found myself feeling vaguely dissatisfied as if the arm bands were more of a band-aid than anything else. The teacher

in whose room the meeting was held was the only African-American on the staff of a school whose students were 40 percent minority. The town itself had once been featured on "60 Minutes" twenty years earlier because its real estate agents used to brag that they steered black clients away from the community. Oakland, California, was immediately to the north. My students had shared a variety of stories with me about how local police and merchants harassed African-American and Latino teenagers.

A couple of weeks later I went to the library and looked up an incident which had happened the previous spring at the district's only high school, a few blocks down the street. Much to my surprise, as I wound the microfilm, I kept finding eerie resonances. (Actually, as I've researched some similar racial incidents, the circumstances are always remarkably the same.) In this case, a group of students had been arrested for jaywalking. The students complained to the police that they were being singled out because of their race. A crowd gathered around and began shouting at the officers. The police called for more help. Something resembling a riot broke out. The students accused several officers of using racial epithets, using excessive force with their nightsticks, etc. A group from the high school's video yearbook had videotaped much of the incident. For some reason, the tape was confiscated and had disappeared.

While the incident was interesting in its own right, I was even more struck by the local paper's coverage. Almost all quotes came from either the police chief or the mayor. Four letters to the editor appeared during the two-week period; all criticized the students and supported the police in no uncertain terms. One story began with a two-line conclusion absolving the police of responsibility which the article only later revealed to be a quote from the police chief. In short, the local history of the event was incomplete.

I had this, in retrospect, horrible idea. Why shouldn't a history teacher teach students how to do history as if it mattered? If the sources seemed as incomplete as I thought they might be, why couldn't my class spend some time on a local contemporary history project, perhaps piecing the incident of a year earlier back together? I decided to talk to my class about what I'd discovered, shared what I found, etc. I checked with the head of my department and talked to my supervisor from my teacher training program. I was quite caught up in the project. I believed that I had found something which fit the notion of finding material which was intrinsically interesting to my students, brought present and past together, had broader implications, promised to be intellectually rigorous.

I came to class that morning with the reprinted articles stacked up neatly on the lab table behind me. My agenda for the day was posted in magic marker

on one board. I was looking forward to a different kind of morning. After the bell and the morning announcements, the usual half dozen interruptions from the office, requests to go to the bathroom, etc., I decided to have my students read through the articles from the local newspaper. As soon as they realized that it was about something they knew something about, a girl who didn't normally volunteer offered to read the story aloud. She read it through without interruption, about the nightsticks, the police using racial epithets, the existence of the videotape . . . . The class was clearly interested.

At the end of the article, several hands went up. I was sure that something had started. I called on the first hand, a very outspoken African-American student, who I thought might get caught up in the parallels. "This is stupid," she said.

"Stupid?" I said.

"Yeah, what's the big deal?" another student volunteered.

"Well, don't you see some similarities here?" I asked.

"Sure, but that was a real person, those were just stupid high school students. They deserved what they got."

"Deserved what they got?" I was shocked.

Another student broke in, "This is dumb. I don't want to do this."

"I haven't even said what we're doing."

"We always talk about this stuff. It doesn't make anything any better."

"Do you guys know about this happening?"

"Of course we do."

"And it happened the way it said in the newspaper."

"Whole different thing."

Another hand went up, a white male student. "We don't exactly like being reminded that these things happened."

Within ten minutes, my hour and a half lesson had stalled. I can't even remember what we wound up doing as a class instead, but clearly they weren't

going to do what I had planned. I don't think there was any day that year that made me feel more incompetent.

It took me some time to see the experience in a different light. I suppose this might be cited some day as a great example of the persistence fallacy (just because it didn't happen the first few hundred times doesn't mean that it won't happen the next time), but my reflections on that day have shaped some of my feelings on authentic assessment. With all this talk of relating class work to students' real environments and real lives, it's possible to get carried away, as I believe I did.

Seventh-graders are still children. Reality can be too frightening for adults. Denial is quite a natural reaction. An African-American student a year away from the high school would never want to deal directly with the possibility that her own community was more similar to Rodney King's community than people acknowledged. Generally students tell the truth in some form. The student who said that he didn't want to be reminded of the incident was being perfectly honest. After all, what would have been the real consequences of taking my "authentic" history project seriously? I didn't really live there. They did.

I believe that part of the power of "story" as teacher is that it can simultaneously be about the listener without being overtly about the listener and his/her world. When events are real, current, and directly touch on students' lives, any number of affective filters come flying out of the realms of consciousness to interfere with whatever you're doing. To simply toss on more "reality" can produce truly clunky results. Real teaching, as opposed to teaching about the real world, I suspect and hope, will always be something of a mystery, more alchemy than chemistry, more illusion than substance, more heart than analysis. In the end, despite the evidence, I guess that's why I'm still trying.

Marko's story eloquently expresses a central dilemma: connecting curricula to the worlds in which many children must live means incorporating harsh realities that students might rather escape. But Marko sees eventually that he is the one envisioning possible connections between school learning and his students' lives. He does not provide his students with choices as to how to make such connections. Perhaps they, if given the chance, could do so in challenging but less threatening ways. Perhaps, with serious and candid dialogue, Marko and his students together can find ways to negotiate paths and build bridges across these divides. As his story indicates, Marko searches his experiences with his students deeply, mining incidents for clues to improve his work. A teacher with a keen mind and a sensitive heart, he indeed "keeps trying."

The most significant element that runs through all these stories of dilemmas,

struggles, and outright mistakes is that these Four Seasons teachers commit themselves to honestly measuring their own professional practices against their idealistic goals for improving educational experiences for students. These teachers are willing to admit it when they fall short of their ideals. They are willing to share their mistakes in public ways so that they and their colleagues can discuss them and learn from them. For too long, the closed-door culture of teaching has hidden both mistakes and successes. These teachers model a new kind of professional culture, a culture in which risks require analysis and mistakes are viewed as inevitable companions to invention and reform.

Professional Development Leading to Teacher Inquiry

Many attempts to improve schools have focused on importing from elsewhere a new curriculum kit, textbook, instructional strategy, or assessment package and foisting it upon schools. Teachers are expected simply to read the teacher's manual, attend the workshop and then implement the innovation in a lockstep fashion. This approach to professional development, which is based on the conception of teacher as deliverer of standardized curricula rather than developer of curricula responsive to students, has already spawned workshops, manuals, and kits for authentic assessment. This prefabricated approach to authentic assessment with the emphasis on techniques rather than a process of inquiry that purposefully focuses teachers on their own professional development is, itself, a major detour.

Fran Powers writes eloquently about having taken just this detour. After returning from the first Four Seasons Summer Institute in 1992, Fran, who teaches elementary school math in a Chapter 1 pullout program, was motivated to implement in her own classroom the new assessment techniques she had learned. After several months, she discovered that she was not learning more about student performance, as she had hoped she would. Fran reflected on the reasons for this failure:

> What I failed to see from the very beginning was that I was using these techniques as a formula and that the tools for authentic assessment were founded in someone else's structure of knowledge. What I needed to do was construct my own knowledge of authentic assessment. I also had fallen into the old traps concerning the issues of assessment. I had to know where each child was at every moment and the students had to create plans of action based on our findings. Looking back on it now, I must have driven the children crazy. I invaded their space.
>
> After feeling bad for a time, I finally sat down one day to take a critical look at what we were doing and came to the conclusion that we were only going through the motions of authentic assessment without any clear understanding of its importance. After coming to this conclusion, I wrote out what my beliefs and philosophies are concerning education. And I started focusing on how we learn and how we construct knowledge. I then connected with, how can we

> make assessment work for us in our learning process? . . . And it suddenly occurred to me that I was involved in the exact same process of assessing, evaluating, and making changes in what I do and that this was exactly the kind of experience that I wanted my students to have.
>
> The big question then became what kind of environment do students need to develop this? This led me to wonder: How do assessment and evaluation occur naturally? Not how we use it in our schools, but rather how have humans used it throughout history to help construct knowledge and grow? And are there different ways that individuals do this or are there universal similarities?

Fran realizes that her own process of inquiry has focused her on the recursive, interactive nature of the teaching, learning, and assessment processes. The process of sharing such detours and roadblocks exemplifies what Schon (1983, 1991) has said is central to school improvement: the "reflective practitioner." Authentic assessment, together with a forum to share practice, plays a key role in professional development. First of all, the quality of data teachers collect from these assessments inspires a metacognitive process for teachers as they hone their pedagogy in response to a heightened awareness about student learning. Second, a community of colleagues, such as the Four Seasons Project or a school faculty, provides a context to support professional growth, innovation, and reflection.

Linda Dancy has written eloquently about tnese two elements of professional development from a personal perspective. She describes how profoundly this process of inquiry has affected her practice:

> My work on authentic assessment has taken me in many directions. It has made me reassess my notions of learning, teaching, and knowledge itself. It has also made me active on many levels of educational reform.
>
> There was a time when I focused on developing my own personal competence as a way of becoming the best teacher I could be. The approach led to subject matter course work, mastery of student textbooks, and development of challenging lessons. In looking back, I did not question the wisdom of this direction, and from today's vantage point, I am glad I did it, but I am equally glad that I now view it as but a stepping stone to true teaching competence.
>
> Authentic assessment has furthered a mindset change that was started by my initial Foxfire work. . . . The concept of a lesson has been relegated to very special situations in which the students and/or I see specific needs. I have learned that what a teacher knows and how skillfully she can craft a lesson according to some "expert's" plan for a good lesson does not matter much if the kids do not see any importance in that lesson. . . . I know now that kids need to be the center of classroom work. This refocus has made me look at

them with opened eyes. I don't think I have begun to know their many ways of making meaning.

Linda feels her teaching has improved because her understanding of student learning has deepened. The knowledge that children need opportunities to construct their own learning applies to adult learners, too. If we want teachers to replace standardized practice with methods more responsive to student learning and diversity, then professional development models must shift to the support of teacher inquiry rather than conformity to pre-set outcomes.

This current wave of reform carries within it the ideas to transform American schools into communities of learners where all the learners, both teachers and students, are actively engaged in inquiry. Linda sent us a story on-line that illustrates the power of collegial exchange and authentic assessment to support professional growth:

> Tim Collins teaches science on my team. Having taught for 20 years, Tim is a prime example of a teacher who loves exposing kids to the issues that affect their lives. He is also a prime example of a teacher who is frustrated by a system that often prevents him from doing the exact thing he wants to do because of its insistence on controlling teachers' lives in an effort to secure reform. Although we share the same planning area and have some common time before school, we had not had a chance to really talk at any length about the power of genuine assessment until a few weeks ago. Sometimes I have been so daunted by what I see as a lengthy task of reaching other teachers with new ways to approach education that I have avoided the subject. My experience with Tim has shown me that I may be underestimating them, and I am overestimating the time involved in reaching them.
>
> Tim was frustrated. After finishing up a unit with his kids, he had felt good about their grasp on concepts, their interest in and enthusiasm for the subject; however, they bombed on the test -- a test he had been using fairly successfully for years. Their conversation and class performance had shown thoughtfulness and depth, yet their grades did not reflect that level of accomplishment. . . .
>
> When I suggested to him that a mismatch existed between what he was teaching his kids and the way he was checking to see if they had learned, his eyes widened with insight. In that moment, I watched him rethink many aspects of his practice.
>
> A few weeks later, Nate Becker, an eighth-grader, did poorly on another of his tests. When Tim asked Nate how he could show his knowledge, Nate devised a plan that did that and went beyond. Using his wit and his artistic talent, Nate created a book that could be used to teach other students. On his

own time, Nate produced a remarkable document of knowledge and talent.

> The booklet, which proved to Tim that Nate really understood the concepts, taught Tim a lot more than that. It opened him up to the power involved in finding alternatives to testing. It showed him how much more he could learn about his kids if he was willing to probe with new ways to get at real knowledge. After that experience, Tim told me that he had been despairing about his future in education. He now sees in authentic assessment a way to redirect kids and teachers toward something realistic and tangible. Tim does not have the technical knowledge that I possess because of my Four Seasons training; however, his years of experience and his frustrations with status quo have helped him to make a quantum leap in seeing possibilities for educational reform.
>
> The lessons to him are clear, and so is the lesson to me. Many seasoned teachers are ripe for sweeping reform. Teachers have the connected knowledge and the motivation to revolutionize their classroom practice if they can witness the power authentic assessment has to change the classroom experience for students.

Professional development is about more than disseminating the content of the newest educational innovation; it must also address process. Professional development is most effective, as it was with Tim, when the processes of inquiry and discovery, which come with learning, happen in context and the need for and process of change are supported by the organization. Although Linda finds her school lacking in this regard, when an opportunity to try an alternative approach was presented, Tim enthusiastically grabbed the chance in spite of limited organizational support. Implicit in Linda's story is the understanding that building collegial relationships is important intellectual work; it is the essential component of creating a learning community -- a phrase that describes what every school should be.

Chapter Four

Classroom Portraits of Authentic Practice

In this chapter our purpose is to portray as vividly as possible how the strands of authentic practice -- assessment, curriculum, instruction, and relationships -- are woven throughout the classroom experience of both the teachers and students. Described here are a first-grade class and a sixth-grade math pull-out group, both of which are located in upstate New York, in Ithaca and Moravia, respectively.

At 9:15 a.m. on November 4, the children in Kathy McLaren's first-grade classroom are spread out in a circle before her. The children have been trying to discover how many days are in the month of November. This question arose from students' curiosity soon after the new month began. In front of them is a reusable calendar with all the dates blank except for the first four numbers, which have clearly been written by the children. One student had suggested they obtain a calendar from the office, and she now shares the printed November calendar of events procured from the school secretary. However, the answer remains elusive because the school's calendar ends with the Thanksgiving break.

"What other way can we use to find out how many days in November?" Kathy asks the class. Another child gets up and goes to his bookbag from which he extracts a datebook he brought from home. He brings it back to the circle. Together he and Kathy locate November, and then she moves around the circle asking the children one by one to point at the last day and identify the number. The problem has been solved.

They now address the subject of bats. Yesterday, when the children arrived at school, they found a small bat hanging upside down right over the entrance to their classroom. While waiting for the ASPCA to arrive and remove the animal, the class observed the sleeping bat, for this was a highly unusual event. Later that day they read about bats and learned quite a bit about their behavior.

Kathy now shares with the class a new book on bats she has found. She reads that "the largest bats have a wing span of six feet! How long is six feet?" Kathy asks the class.

The students volunteer their speculations about the length of six feet in a variety of ways. Several children stretch their arms as far apart as they will go. Another child counts six creases in her finger and says that is six feet. "My father is six feet," says someone. A student sitting next to Kathy waves her foot in the air.

Kathy now speaks: "Amy says that we can use her foot to measure six feet. Let's

see." Kathy now has Amy stand up and Kathy stands next to her, placing her foot next to Amy's. "Are our feet the same size?" Kathy asks. "Will six of my feet and six of Amy's feet be the same?" The contrast is evident and the vocal members of the class resoundingly say no.

"What can we do about this?" Kathy asks. One boy says that there are rulers that have feet on them and suggests using those. Kathy crosses the room, gets a jar jammed with 12-inch rulers, and introduces the concept of standardized measurement by saying: "Everyone has agreed that this is one foot." She holds up a ruler. No more needs to be said because the purpose for standardized measurement has been clearly demonstrated.

"Now how can we find out how long six feet is?" Kathy asks. The children instruct her to lay one ruler on the floor and then another and another. One child calls out: "And now three more."

Kathy asks, "How do you know?" and a child explains her reasoning to the class. Heads nod around the circle as they listen. The children now survey the physicality of six rulers laid end to end and some squirm around on the floor to lie alongside them. They have been sitting for some time now, and most are wiggling around like earthworms after a rain. One child plops his body down on top of the rulers.

"Are you trying to show us where the bat's body would go?" Kathy asks. Her simple question pulls back the children's interest, and one child's squirming becomes instructive for all. They discuss bat anatomy briefly, and then Kathy says, "You know, I can't quite picture a six-foot bat. Is there anyone who would be interested in making a six-foot bat today?" The level of response surprises her; she had planned to offer this activity as one of today's options to a few volunteers.

But everyone wants to do this, so the class continues their problem solving with renewed fervor. "How can we make some six-foot bats? What do we need?" Kathy asks the class. In addition to identifying the materials they will need and where they can get them, the class discusses how to group themselves. It is noted that there is not enough room for 17 six foot bats, so Kathy suggests that three students work together on each bat. Before the class meeting ends, they discuss how they will group themselves and with whom they will work. One boy, accompanied by a high school student volunteer, goes off to the art room for paper while Kathy whispers their names one by one, signifying dismissal from the class meeting. She asks that they work in their math journals and when they finish those, they can use any of the math materials in the room.

For the next fifteen minutes or so the children work independently of Kathy, some alone, some in pairs. The wide array of math materials is easily accessible and attractively arranged in one area of the room. Kathy strolls around the room, observing children as they work, and comments on their journals when they show them to her.

The high school volunteer returns to the classroom with the six six-foot-long pieces of paper from the art room. Kathy puts the paper in the middle of the meeting area and reconvenes the class. In the same manner as before, she leads the children through the process of thinking through the variables they should consider and decisions they will need to make when they create their bats. She continues to ask open-ended questions that provoke thought and discussion about the task before them. One boy, Nathaniel, is upset with the grouping arrangement because he wants to make his own bat and take it home.

Kathy queries the class, "Does anyone else feel this way? What should we do about this?" No one else appears to have this concern but two children share how they would help Nathaniel. In both cases, they offer to give the bat to Nathaniel to take home because he is their friend. Kathy exclaims, "That is so nice! I am really touched. Nathaniel, you are lucky to have such wonderful friends." Nathaniel appears to be reassured and the two children have been validated for their generosity of spirit. The children have seen that their classroom community is responsive to the individuals within it.

Now the classroom furniture is pushed out of the way, and the big pieces of paper are spread around the room and in the hall. The children's enthusiasm propels them forward, and they immediately lie down on the floor and begin drawing. Within minutes, it is clear who has understood today's lessons and who has not. Those who grasped the six-foot wing span have their bat's wings touching the edge of the paper. One group begins drawing three tiny bats. Kathy has them get up and survey the other pictures. Several children circulate around the room and assess their classmates' efforts. "Your bat's wings are upside down," points out one child. "Go look in a book and you'll see."

The children are busy and Kathy is observing them carefully. She sees a girl bent over and crying while her two co-workers busily color in the bat's wings. Kathy drops to the floor, close to the child. "Why are you crying, Marla?" Kathy asks and then waits. The child does not reply. "Please stop working," Kathy says to the two other girls. "Why is Marla crying?" They shrug. Kathy continues, "We have to solve this. You cannot keep working when one person in your group is crying. What are you going to do?" With Kathy's help, the three girls divvy up the bat to the satisfaction of all and return to the task with noticeable concentration. With the exception of one especially fanciful bat with hearts and flowers on its wings, the bats are markedly accurate in shape and color.

Kathy's classroom practice illustrates a nearly seamless integration of many components: of content areas, including art, math, science, language arts; of interpersonal and academic skills, such as negotiation, discussion, problem solving, and the application of knowledge; of instructional strategies, such as cooperative learning and open-ended questioning, with curriculum and assessment. The boundaries between different content areas, personal and academic concerns, and curriculum and assessment are blurred.

The enacted curriculum in Kathy's room embeds the math objective -- measurement -- within a context that is authentic for the students because it comes from their experience and

interest. Measurement has a real purpose, which is to help them better visualize a six-foot bat so they can make one. Measurement helps extend their learning; they saw a real bat the day before but needed help in understanding the dimensions of the one mentioned in a book. Kathy learns this when she asks them how long six feet is. Their responses help her gauge the pace of the lesson, exemplifying the use of assessment to inform instruction.

The children's bats give Kathy a lot of information about their learning because they have to apply their knowledge to do the project successfully. Kathy has observed that they have incorporated much of the vocabulary from this project into their daily lives. She has heard children use the words echolocation, prey, and nocturnal in context. When they line up to walk through the hallway, the students tell her they will be "as quiet as a bat during the day."

After finishing the bats, the children cut them out and they are hung in the room and the hallway. The lesson is extended further by having the children write one bat fact they have learned, and these are hung under their bats. These bat facts are seen as published pieces of work that are prepared to be put on public display. The students work through the editing process, producing a series of rough drafts that demonstrate to Kathy the range of their writing abilities. Kathy says she uses these drafts as diagnostic assessments that inform her about the students' grasp of printing, spacing, and sentence boundaries as well as their understanding of the content knowledge. The bat-fact compositions subsequently go into the students' portfolios.

Kathy's teaching illustrates the thorough integration of the elements of authentic practice -- authentic relationships, curriculum, instruction, and assessment. The description does not capture Kathy's body language or tone of voice, which communicated her respect for her students in nonverbal but powerful ways. It does not capture the intense engagement in the classroom activity that is a sign of real learning.

Some teachers think it is inappropriate for them to explicitly teach values but we have observed that teachers like Kathy do not separate out the teaching of values, such as respect and consideration for one another, from their practice. We question if it is possible to maintain this boundary between the teaching and assessment of content and the teaching and assessment of human decency. Authentic learning in the classroom is bound up with authentic, positive relationships.

In addition, a significant change in relationships, curriculum, instruction, and assessment occurs when teachers shift their attention to focus more on student thinking. One result is that content is seen as a means to develop thinking as well as a goal in itself. Relating this to Kathy's classroom, bats as a content area was almost incidental. It follows then that assessment is necessarily aimed at opportunities for student application and construction of knowledge rather than solely recall. Such opportunities can provide the teacher with a window into students' thinking as they observe the strategies they employ, combined with the conclusions they get. Kathy attributes some of this to her Foxfire

training, which teaches the value of experiential learning and democratic decision making.

Fran Powers has also applied the Foxfire Core Practices to her development of authentic assessment. Over time Fran has transformed her classroom into one in which the students themselves monitor their own learning. Students in groups of five to seven come from grades 1-6 to Fran's math resource room because they have scored below the cutoff on standardized tests. In contrast to the usual remedial fare found in resource rooms, Fran offers a stimulating selection of games and high expectations for performance. Fran has thought long and hard about the nature of assessment, which she feels is sometimes at odds with the purpose of assessment:

> I think we assess, we evaluate on a continual basis. It is very natural and it is an internal skill that we develop at a very young age. Children who are learning to walk use assessment constantly. As children play, they are assessing what they are doing, evaluating, and making changes as they go. I find when children enter school much of this natural internal skill all of a sudden now becomes external. In the classroom children are assessed by the teacher, by someone else. The children continue to assess internally, but I do not think we focus on this internal event enough, nor do we give children enough space for them to develop it. For me, this ability to self-assess is the root of lifelong learning. My concern is that we take a lot of this natural ability away from children with our focus on assessment and overemphasis on how well students are doing academically. We end up treating assessment and achievement as products rather than an integrated process.

In Fran's classroom the students actively engage with Fran in reflection on learning, curriculum, and assessment because Fran feels this is how they learn best. One of her goals is that the students develop a metacognitive sense to guide their own learning. Fran has been documenting their process in daily narrative reflections that she writes after school:

> How We Learn
> 6th Grade Student Discussion
> October 4, 1993
>
> After introducing the Math Lab Student Survey on how people show different ways of understanding, the students became engaged in a lengthy discussion about learning and school. The students' ideas, thoughts, and feelings poured out. I took notes as fast as possible so as not to lose the significance of how these students view school and how they view learning. . . .
>
> After brainstorming ideas of how people show that they understand how to do something, the students came up with the following ideas:
>
> 1. You can talk about it.

2. You can draw it.
3. You can take a test.
4. You can demonstrate it.
5. You can teach it to someone else.
6. You can act it out.
7. You can answer questions about it.
8. You can just do it!

This last idea led one student to say, "Sometimes I know how to do something, but I don't know how to show it." . . . He went on to say, "Sometimes my teacher will ask me to write about something and I know what to say, but I don't know how to write it. Do you know what I mean?"

Another student answered, "Yeah, that's like when a teacher asks you a question about something and you have an idea, but you don't know how to answer the question."

This led another student to say, "Sometimes I get frustrated in school because I can do things real good at home, but not good in school. . . . At home I get to do things and at school I only get to learn about things."

I asked him if he thought he was learning when he did things at home. "Yeah! I learn it better."

. . . Another student chimed in, "Everyone learns better when they do things."

"Why do you think you learn better when you do things?"

Another student answered, "Because it helps you get it right into your head. You remember it better."

I asked the students, "If you had an opportunity to decide how you were going to learn math this year, do you think you could come up with some ideas that would help you learn better?"

The students responded enthusiastically that they would like to do that. I told the students that there were certain things that we had to do in math this year and there would be times when I would ask them to do things that might be very difficult and things that they might not like to do.

"Such as division!"

However, we could decide as a group and individually how we would learn math this year and how we would show our understanding of what we learn.

> One student commented, "Then we are going to have to do things like things we do at home." The other students agreed.
>
> When I asked them for examples, one student explained, "We are going to have to do math like real people."
>
> "What do you mean 'like real people?'"
>
> "We have to do real things."
>
> "Can you give me some examples?"
>
> After some thought one of the students came up with, "Well, if I have to do division, I want to know why and I want to know how division is used by grownups."
>
> I agreed that this was an important question and it was something that we should investigate this year. . . . We decided that we would continue this discussion next time.

A month after this student discussion took place, a visit to Fran's classroom revealed that these students had designed a yearlong research project as part of their work in the math lab. They had decided to take the seven strands of mathematics from the National Council of Teaching Mathematics (NCTM) math standards and investigate their usage in real-life work settings by surveying people in different professions and writing letters to them to learn how they use math.[1] This connection to the real world and to children's interests is characteristic of the Foxfire approach, which Fran credits as having altered her practice in significantly positive ways:

> I find children have very natural curiosity about the world around them and if given the right environment, wrapping the curriculum around their questions and their ideas, they will come to [see] what we need to do. I find that year after year. They *will* develop the curriculum according to their needs.

The Foxfire Core Practices are listed on Fran's reporting sheet (see Figures 4 and 5). These are kept in a looseleaf notebook for easy access and copies are sent to the classroom teachers on a regular basis. Although her students typically score well on a variety of assessments, including the standardized tests they had failed before taking her math class, Fran uses this documentation to satisfy the inspectors from the New York State Department of Education who come to her school to review the implementation of the Chapter 1 program.

---

[1]The seven strands include number, measurement, geometry, patterns and functions, statistics and probability, logic, and algebra.

Figure 4

STUDENT PROGRESS REPORT

TEACHER _____ GRADE _____ DATE _____

Classroom Objectives:

Areas covered in the Math Lab (Areas covered in the Lab are checked below)

	BASIC CONCEPTS		OPERATIONS		APPLICATIONS
	Numeration		Addition		Measurement
	Numbers 0-9		Models & basic facts		Comparisons
	Numbers 0-99		Algorithms to add whole nos.		Using non-standard units
	Numbers 0-999				Using standard units
					length area weight capacity
	Rational Numbers		Subtraction		Time and Money
	Fractions		Models & basic facts		Identifying passage of time
	Decimals & Percents		Algorithms to sub. whole nos.		Using clocks & clock units
					Monetary amounts
	Geometry		Multiplication		Estimation
	Spatial & attribute relations		Models & basic facts		Whole & rational numbers
	2-dimensional shapes		Agorithms to mult. whole nos.		Measurement
	3-dimensional shapes				
	Activities:		Division		Interpreting Data
			Concepts & models		Charts, Tables, & Graphs
			Algorithms to divide whole nos.		Probability & Statistics
			Mental Computation		Problem Solving
			Computation chains		Solving routine problems
			Whole numbers		Understanding & solving non-routine problems

■: SHOWING MASTERY △: SHOWING IMPROVEMENT ●: NEEDS MORE WORK

STUDENT		AREAS COVERED	COMMENTS
		Basic Concepts	
		Operations	
		Applications	
		Basic Concepts	
		Operations	
		Applications	
		Basic Concepts	
		Operations	
		Applications	
Whole Group		Basic Concepts	
		Operations	
		Applications	

57

Figure 5

Class Plan Sheet

Date _____ Class _____

Activity

Students	Comments

Areas covered in the Math Lab:

CORE PRACTICES

1. All the work teachers & students do together must flow from student desire, student concerns.
2. Therefore, the role of the teacher must be that of collaborator, team leader, & guide.
3. The academic integrity of the work must be absolutely clear.
4. The work is characterized by student action, rather than passive receipt of processed information.
5. A constant feature of the process is its emphasis on peer teaching.
6. Connections between the classroom work & surrounding communities & the real world outside the classroom are clear.
7. There must be an audience beyond the teacher for student work.
8. As the year progresses, new activities should spiral gracefully out of the old.
9. We must acknowledge the worth of aesthetic experience & model that attitude.
10. Students & teacher must periodically step back and reflect on the process & work.
11. The work must include unstintingly honest, ongoing evaluation for skills and content, & changes in student attitude.

7 STRANDS OF MATHEMATICS
(Curriculum Objectives)

1. Number
2. Measurement
3. Geometry
4. Patterns and Functions
5. Statistics and Probability
6. Logic
7. Algebra

This is my 20th year teaching in a Chapter 1 program. These programs require a great deal of record keeping based on guidelines and mandates from the State Ed Department. When the representatives from State Ed come to review our program, they look for specific indicators that remediation is taking place based on the guidelines. I often find myself saying, "These guidelines and recommendations are fine, but are cumbersome and do not assist me in the education of the students. They do not work for me; however, this does. [Fran refers to two attached reporting sheets.] In addition to these sheets, student work samples are kept in their individual folders.

The Chapter 1 legislation is currently under review, and one criticism has been the enormous amount of time teachers must spend maintaining a paper trail for accountability's sake. Fran thinks she has found one way that documents student progress in ways that are useful to her and other classroom teachers, while still providing adequate documentation to the state for accountability purposes.

In each of these classrooms, student interest and student learning are center stage, guiding curriculum design in dynamic ways. Common to both examples is a feeling of ownership and empowerment that comes with the opportunity to construct one's own knowledge and have it valued. Both students and teachers are intrinsically motivated to strive for excellence because the work they are doing is a genuine representation of their abilities and their interests.

These classrooms are hubs of student inquiry, whether the topic is six-foot bats or how math is used in the real world. Among the most important topics of inquiry, for both teachers and students, is assessment: of an individual student's learning by the teacher, of the student by the class as a group, and assessment of the shared experiences, called curriculum, by the teacher and the students as they demonstrate their individual and collective knowledge in multiple ways. Through this process, students and teachers begin to recognize standards of quality that guide, motivate, and inspire further learning. Most school mission statements include lifelong learning as a basic goal. If students do not internalize standards for quality learning that connects to their lived experiences and if they cannot find ways of learning that are useful to their real lives, they are unlikely to be motivated sufficiently to continue learning. This process provides a metacognitive experience -- a conscious thinking about one's learning -- that is basic to the goal of sustaining lifelong learning. The business of schooling should aim at nothing less.

Chapter Five

The Journey Toward Authentic Assessment: Where This Road Leads

A major premise of this paper, and of the Four Seasons Project, has been that those closest to the education of children can contribute substantively to the ongoing search for solutions to the problems of American schools. We have highlighted the words and actions of Four Seasons teachers to demonstrate this very point. Education goes on primarily in the relationships and interactions among teachers and learners, and yet the knowledge of teachers continues to be underestimated and underutilized. Assuming that knowledge from the field should guide the school change process, many current assumptions that influence how schooling is managed must be challenged. Successful implementation of authentic practice in classrooms necessitates changes both inside and outside classrooms. A common slogan among school reformers says that we need top-down support for bottom-up change: It is precisely this kind of cooperation among *all* parts of the educational system that addresses the complexity and scale of the problems we face. The current reform agenda is ambitious in breadth and depth: The philosophical, psychological, social, political, and pedagogical foundations of education are all foci of intense analysis and revision. Doing business-as-usual in schools is inadequate to the challenges the current school reform agenda demands.

More than Tinkering: Restructuring Schools

The move from standardized practice, a one-size-fits-all approach, to authentic practice in which teachers become responsive to student diversity necessitates different organizational structures throughout the educational establishment. The bureaucratic structure in most schools allows too little time and too little say over schedules for the kind of collegial exchange teachers need to develop authentic practice. Class size has to come down if teachers are to know their students well so they can serve them well. Professional decisions about curriculum and assessment should be made by those on site in response to the needs of their students.

We began this paper with several examples of what happens when teachers feel themselves marooned in their attempts to do innovative work while surrounded by an an unsupportive, sometimes hostile, environment. But there are many more Four Seasons teachers who shared with us and each other the frustration they experience when, in spite of their efforts, their school's organizational structure unwittingly allows students to fall through the cracks or reject school altogether. When school practitioners witness the power of authentic practice to transform their classrooms, they wish for the transformation of the school itself.

While many Four Seasons faculty are involved in school restructuring, Puyallup High School's Carol Coe and Linda Quinn, a Foxfire teacher and a principal, respectively, shared lengthy reflective writing with us describing how their experience with authentic practice impelled them to address the issue of organizational change. Some excerpts from Linda's description illustrate how the application of professional knowledge about student learning and teaching practice guided their efforts to design a different organizational structure:

> Puyallup High School's Visions program was conceived in the spring of 1991 [out] of two fundamental beliefs: 1) our existing educational system was not adequately meeting the needs of a significant group of students; and 2) nothing short of a major overhaul of school would provide these young people with the education they and our society require. Several colleagues from across our district ended up at a workshop together. That combination of folks, one of whom was Carol Coe, decided the time for conversation was past. Rather than talking anymore about issues and concerns, we wanted to take action -- for the kids' sake.
>
> Over the course of the two months that followed, a small core of teachers, administrators, and staff began making plans to forge a smaller learning community within our larger comprehensive high school of 1,600 students. We began with a "vision" of a small cadre of teachers and students who could work together in a team-oriented approach to learning. We wanted to develop a program that emphasized integrated curriculum, active participation, real-world applications, and meaningful community connections. We wanted to create a learning environment that honored the student voice and allowed for a variety of ways of learning, knowing, and demonstrating what is known.
>
> While our instincts and our research told us these goals made sense for all kids, we chose to target our least successful, most disenfranchised youth with this initial endeavor, a decision shaped at least in part by hopes of sidestepping some of the politics that often bog down attempts at institutional change.

Linda does not romanticize the creation of the Visions program. "The first year was nothing if not a struggle for the Visions team -- truly exhilarating and also extremely frustrating. I sometimes say that we started with 140 at-risk students and ended with a dozen at-risk teachers."

Nevertheless, both Linda and Carol witnessed dramatic progress in the many of the Visions students, and one in particular, Alice Patzcoff, exceeded their highest hopes. Carol recently interviewed Alice for this paper because she thinks Alice's story illustrates the opportunities that authentic practice can afford when the organizational structure supports it. According to Carol, Alice's participation in Visions profoundly altered her life, although the social odds were against it.

> Alice entered Puyallup High School with a record from junior high that [included]. . . abusing alcohol and most other drugs. . . . [She] was expelled from eighth grade after getting drunk at school [and was] a run-away, one time getting as far as California in a stolen car. [She flunked] four or five classes every semester of seventh, eighth, and ninth grade, [was] often absent and [skipped] school for a period of up to two months at a time. . . . A look at her immediate family would also indicate that Alice had the odds stacked against her. . . . When Alice was in eighth grade, her brother was in prison and her sister was in rehab.

In elementary school Alice was placed in special education classes. She couldn't shake this label and told Carol how this affected her:

> The first time I just wanted to cry because the lady, the teacher, came in and they introduced her to the class. "This is for the special reading class." You're sitting there just shaking and sweating, saying, don't call my name. Well, they started putting me in all those classes. You were considered stupid back then, and kids are cruel. We learned a lot but the social part of it was bad. . . . [Then] you get to junior high and they label you. I think the [elementary] teachers. . . told them about me because at the sign up [for classes] they had my name on a list. When I tried to sign up for a certain reading class, they would say, "You have to go to this one.". . . I am so mad at them still.

Alice's experience in school builds a strong case against categorizing students and points out the misery students must endure when teachers don't have the time to get to know them.

Although Alice had been planning to drop out at the end of her sophomore year, a teacher who believed in her potential encouraged her to join the Visions program. She was assigned to Carol Coe's advisory:

> The advisory was a place for talk and for reflection. Our Visions staff instituted journal writing as a regular part of advisory. Those journal entries . . . gave me a way to understand my advisees. It also became a way for them to get acquainted with me. I wrote back to them faithfully and shared parts of my own journal with them as well.
>
> About two weeks into the school year, Alice and two other advisees asked me to have breakfast with them. . . . I saw the invitation as an indication that a positive relationship was starting to develop. I'm sure that invitation would never have been offered without the connections that our advisory were making possible.

Alice was a student in Carol's history and English classes also, and Carol saw that forming

an authentic relationship with Alice motivated her to apply herself academically. About her first history assignment for Carol, Alice said:

> I was really interested and I wanted to learn it really bad. Usually everybody went too fast, but you gave us our own amount of time. So I worked and worked . . . every night until I got it done how I wanted it. . . . There was a deadline, but it was more a point to shoot for and I could still work on it if I didn't get it in on time. Without that, I don't think I ever would have gotten as far as I did. . . . That really stands out in helping me.

Because Carol had opportunities built into the school day to know her students' needs, she learned that adjusting the time frame for assignments and allowing for revisions provided opportunities for Alice to experience academic success.

Carol describes several projects that her students completed that resemble what the Coalition of Essential Schools calls "exhibitions." Such an approach provides multiple ways for students to demonstrate what they know. In addition to students' writing and projects, Carol says, "I often use students' ability to talk about what they study as one indication of their understanding." One of these assignments was called a "mega-paper," which included a self-study and an oral presentation of personal philosophy. Carol writes:

> The mega-paper allowed me a chance to know each of my eighteen advisees in a much more personal way than is common in a typical school setting. From Alice's paper, I learned about her earlier troubles in school. . . . I also learned that she had quit most of her drinking and drugging behavior. Reading the paper gave me a new appreciation for Alice's strength of character and all she was accomplishing during her junior year. . . .
>
> Recently I asked Alice, "What was the best test you ever took in all of high school, the thing that demonstrated you really knew something?" Her response, which came without hesitation: "Presenting! That was the big test! If you take a paper and pencil test, you might not know the material and still guess it . . . but [with presentations] you actually know -- deep down through your whole body -- you know what you are doing because you had to get up there and do [it]. . . . It's the stuff I will never forget. I think that's a test that's worth taking."

Carol took her students, including Alice, beyond the school walls to present to a wide range of audiences. These public presentations were authentic assessments without school-like contrivance. Their principal, Linda Quinn, was in attendance at one of their presentations:

> Numbers and letter grades alone could never capture the excitement and engagement and genuine concern for doing quality work exuded by the group of Visions students who presented at the Fourth Annual Action Research

> Symposium in Portland, Oregon, in April of 1992. Before an audience of educators from all over the world, they reported the data they had collected about student behaviors in and attitudes toward Visions, especially as they compared to those of students in the traditional school. They talked about teaching and learning styles and thoughtfully reflected on issues related to assessment and accountability. I was struck by the depth of their feelings of ownership. I was moved by the pride evident in both their words and their appearances. They were talking to educators about what needs to [be] done to make schools work better for all kids, particularly for kids like them. And they sounded so good, so intelligent, perceptive, and articulate that I suspected conference attendees thought we had brought in a group of ringers, honor society kids posing as "at risk." Finally I identified myself from my place among the audience and asked the students' permission to pose a rather personal question. Sure, they agreed, since we had by that time developed a pretty healthy trust between us. I asked how many of them failed the sophomore speech class we require of all students in our district. Five of the nine raised their hands.

Exposing students to experiences like this, where they could begin to apply the kinds of skills and knowledge that would eventually be expected of them in adulthood, focused them on the expectations of the real world. But the safety net of school and teachers was still in place so they could take risks without dire consequences. Linda writes that Visions students demonstrated their learning across disciplines by undertaking such projects as:

> defining and setting up their own system of government; conducting a citywide tree planting project; setting up a corporation for the purpose of building an electric car; conducting a study of local wetlands, including mapping the area, inventorying plants, constructing an artificial model within the classroom, and teaching a wetlands unit to other teachers as part of a college level course.

These are impressive projects and especially so, given that the students who did them were classified "at-risk." Their successes suggest that the students were not the ones with the deficits -- the school structure should be seen as deficient because these students had not previously been able to experience success.

A running theme throughout Carol and Linda's writing is the assumption that authentic relationships are the foundation of their success with students who had not achieved in school before. On this foundation they have built an organizational structure that promotes the continual growth of these significant relationships in such ways as block scheduling, which allows teachers and students to spend more time together; democratic governance that necessitates collaboration among faculty; an advisory system that helps to personalize educational services for the "whole student"; and a curriculum that builds on students' interests.

When Carol asked Alice to pick out the one thing in her high school experience in Visions that really helped to turn her around, Alice said: "I think how you took the time to help me and you took the time to work with me for those classes. You pushed -- you didn't push me -- but you gave me the courage to go into Action Research and go to Washington, DC, and do school stuff." Carol's instructional method, which Alice refers to, relies on coaching students through challenging tasks while providing ongoing support and encouragement as they work at the edge of their competence.

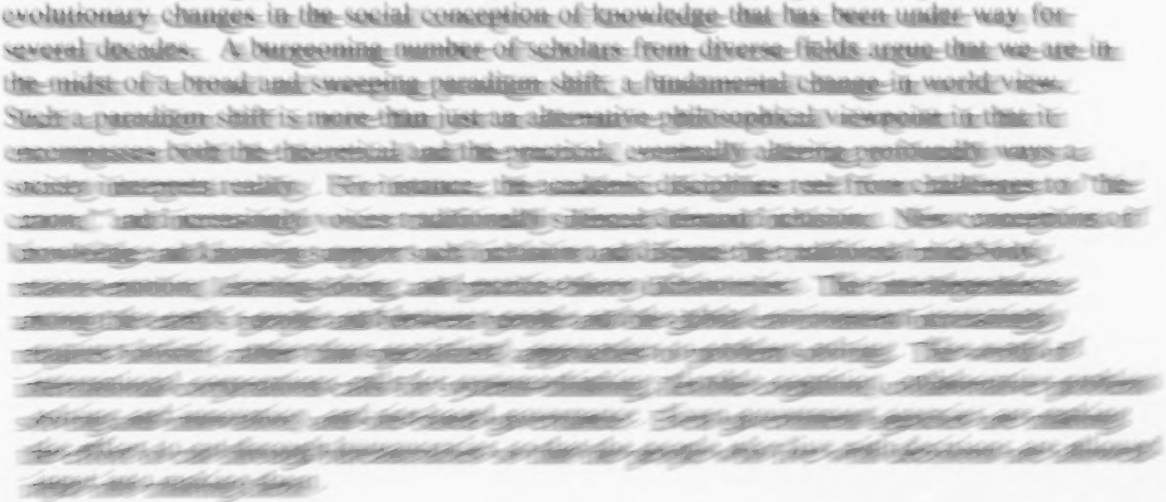
While Linda and Carol felt confident that impressive student learning was going on in the student projects mentioned here, it is difficult to separate out curriculum from instruction from assessment. And while some assessments are in place, they alone are not enough. Linda writes:

> To be sure, the kids in Visions were different by the end of that first year in some very important ways. We knew it. They knew it, and many expressed it clearly during the follow-up surveys we conducted. Their parents, who were perhaps the most enthusiastic Visions supporters of all, definitely knew it. We had made progress even if traditional tests and measures had not yet registered that progress in traditional ways. We knew our statistical data did not fully capture or reflect all that our students accomplished during the year. They didn't show the degree to which they were more connected to school, more able to articulate their own learning styles, more full-fledged participants in their own education, more self-confident human beings. They didn't show their increasing abilities to transfer knowledge and skill through repeated attempts to stretch such knowledge beyond its current range of application. They didn't tell the story of incredible gains and personal triumphs like those of Alice Patzcoff.
>
> We began rethinking the nature of our assessments. We talked about what really counts and is valued as work and achievement and intelligence in our schools, about who decided that it is so, and about whether or not we agreed. We brainstormed ways to better "teach" to the academic agendas of school without ignoring the other equally important everyday life roles. In our talking and planning, we began to think hard about what we were choosing to teach and how well it matched what we thought we should be teaching. We stressed personalization through advisory, participation through projects, learning by doing and learning by discovery through student government -- and we began to consider other, more effective ways of assessing these other skills and outcomes. We made plans to implement a new system of [illegible] assessment, including a form of student survey, an attitude scale, and writing samples. We planned a portfolio system that would provide a more accurate and complete student record. We worked at finding and developing other tools for assessing growth and achievement.

There is a synergistic relationship among curriculum, instruction, and assessment that depends on the quality of the relationships among a school's stakeholders. When school practitioners are free to design an organizational structure to focus all efforts on the needs of the learners, then the probability that authentic practices will be implemented is increased.

Clearly, more responsibility for the implementation of effective educational practice should be shifted to the local context. Ultimately, it is the professional knowledge of school practitioners that determines the educational experiences of students. No set of mandates or sanctions, however airtight, will change this. A system based on the bottom line of test scores doesn't give a clear picture of the "incredible gains and personal triumphs," as Linda put it, that teachers witness in students. Schools should be held accountable for providing the conditions necessary for teachers to create appropriate opportunities for students to learn. Teachers who have struggled to develop and implement authentic assessments can help illuminate key characteristics and dilemmas of making the transition away from standardized student outcomes and toward creating a system based on professional standards. The inclusion of teachers in the policy-making process would help to bridge the gap between the goals and intentions of policy makers and the exigencies of local contexts. Policy makers need more knowledge about local efforts in order to design policies more effectively, and teachers need access to policy makers so they can help them achieve this goal.

Authentic Assessment on the Map of Social Change



Possibilities abound for a more inclusive, tolerant, knowledgeable, active citizenry despite the many harrowing social ills that beset us. Present conditions offer this society a truly profound opportunity -- that is, a serious chance to strengthen and deepen democratic principles and practices. Fulfilling that opportunity will mean, however, not only an acceptance and celebration of diversity, but also developing the ability to find common ground for communication and negotiation (Hargreaves, 1994). It will mean a citizenry capable of imagining less constraining social, environmental, and political conditions. Given the sophistication of media and technology, citizens will also have to think through the multiple messages that bombard their daily lives, using well-developed critical, reflective, and ethical lenses. To meet these challenges, we do indeed need to reenvision education.

We believe the innovative classroom practices documented here represent new conceptualizations of educating that reflect this changing world view. The examples of authentic practices we describe evidence how Four Seasons teachers are working to help students learn in and build communities, become responsible for their own and group learning, think through and from alternative perspectives, connect their learning to their own experiences and the worlds outside them, become reflective and judicious problem solvers and critical thinkers. We believe that students who experience this kind of education learn to see themselves as constructors rather than recipients of ideas.

We have grounded this paper in a respect for multiple perspectives. Hence, we have purposefully avoided definitive interpretations and neatly constructed conclusions. Rather, we have tried to fairly present the organic and idiosyncratic nature of school reform in practice. We have learned from the Four Seasons teachers that at this time in the development of authentic assessment, the collective learning curve is steep. The nature of this current set of reforms extends far beyond tinkering to a thorough rethinking of educational theory and practice. Grappling with a new set of assumptions necessitates a recursive process of research, development, implementation, and continual self-monitoring among all the players in the educational arena.

We will have failed if the result is the dominance of any one group's conception of the one best way to teach or assess or restructure schools. An endorsement of multiple ways of knowing means that teachers need a repertoire of strategies to accommodate the diversity of learners. Assessment, likewise, must be seen as a means of gathering data to guide the complex, multilayered act of educating students. Authentic assessment, embedded within a school community focused on learning for all its stakeholders, is a viable means to help educators chart the course for improving schools. There is much to learn. We end this paper in tribute to Four Seasons teachers who have risked leaving the comfort of the shore to journey in explore and wonder.

References

Asseo, G. (1992, June 17). "By All Measures: The Debate over Standards and Assessments." *Education Week* (Special Report).

Banks, J. A. (1995). "Multicultural Education: Characteristics and Goals." In J. A. Banks (Ed.), *Multicultural Education: Issues and Perspectives*, pp. 1-28. Boston: Allyn and Bacon.

Belenky, M. F., Clinchy, B. M., Goldberger, N. R., and Tarule, J. M. (1986). ***Women's Ways of Knowing: The Development of Self, Voice, and Mind***. New York: Basic Books.

Cohn, M. M., and Kottkamp, R. B. (1993). ***Teachers: The Missing Voice in Education***. Albany: State University of New York Press.

Cremin, L. A. (1964). ***The Transformation of the School***. New York: Vintage Books.

Darling-Hammond, L. (1991). "The Implications of Testing Policy for Quality and Equality." ***Phi Delta Kappan, 73***(3): 220-225.

Darling-Hammond, L. (1993). "Reframing the School Reform Agenda: Developing Capacity for School Transformation." ***Phi Delta Kappan, 74***(10): 752-761.

Goodlad, J. I. (1984). ***A Place Called School***. New York: McGraw-Hill Book Company.

Goodlad, J. I. (1990). "Common Schools for the Common Weal: Reconciling Self-Interest with the Common Good." In J. I. Goodlad and P. Keating (Eds.), ***Access to Knowledge: An Agenda for the Nation's Schools***, pp. 1-21. New York: The College Board.

Gould, S. J. (1981). *The Mismeasure of Man*. New York: W. W. Norton and Company.

Greene, M. (1994, October 14). Keynote address at the Five Seasons National Faculty's Western Region Assessment Fair, Puyallup, WA. Sponsored by the Five Seasons National Faculty.

Gilligan, C. (1982). *In a Different Voice*. Cambridge, MA: Harvard University Press.

Gilligan, C., Lyons, N. P., and Hanmer, T. J. (Eds.) (1990). *Making Connections: The Relational Worlds of Adolescent Girls at Emma Willard School*. Cambridge, MA: Harvard University Press.

Gilligan, C., Ward, J. V., and Taylor, J. M. (Eds.) (1988). *Mapping the Moral Domain*. Cambridge, MA: Harvard University Press.

Gilligan, C., Ward, J. V., Taylor, J. M., and Bardige, B. (Eds.) (1988). *Mapping the Moral Domain*. Cambridge, MA: Harvard University Press.

Goldberger, N. R., Tarule, J. M., Clinchy, B. M., and Belenky, M. F. (Eds.) (1996). *Knowledge, Difference, and Power: Essays Inspired by Women's Ways of Knowing*. New York: Basic Books.

Gore, J. M. (1993). *The Struggle for Pedagogies: Critical and Feminist Discourses as Regimes of Truth*. New York: Routledge.

Grumet, M. R. (1988). *Bitter Milk: Women and Teaching*. Amherst: The University of Massachusetts Press.

Harding, S. (1991). *Whose Science? Whose Knowledge? Thinking from Women's Lives*. Milton Keynes, PA: Open University Press.

Hargreaves, A. (1994). ***Changing Teachers, Changing Times: Teachers' Work and Culture in the Postmodern Age***. New York: Teachers College Press.

Jackson, P. W. (1990). ***Life in Classrooms***. New York: Teachers College Press.

Lieberman, A., Darling-Hammond, L., and Zuckerman, D. (1991). ***Early Lessons in Restructuring Schools***. New York: National Center for Restructuring Education, Schools, and Teaching, Teachers College, Columbia University.

Lieberman, A., and Miller, L. (1992). ***Teachers, Their World, and Their Work: Implications for School Improvement***. New York: Teachers College Press.

Little, J. W. (1992). "Opening the Black Box of Professional Development." In A. Lieberman (Ed.), ***The Changing Context of Teaching***. (The Ninety-First Yearbook of the National Society for the Study of Education), pp. 157-178. Chicago: University of Chicago Press.

Lortie, D. (1975). ***School Teacher: A Sociological Study***. Chicago: University of Chicago Press.

Madaus, G. F. (1991). "The Effects of Important Tests on Students." ***Phi Delta Kappan, 73***(3): 226-231.

McLaughlin, M. W. (1991). "Test-Based Accountability as a Reform Strategy." ***Phi Delta Kappan, 73***(3): 248-251.

McLaughlin, M. W. and Talbert, J. E. (1993). ***Contexts That Matter for Teaching and Learning: Strategic Opportunities for Meeting the Nation's Educational Goals***. Stanford, CA: Center for Research on the Context of Secondary School Teaching, Stanford University.

Minnich, E. K. (1990). ***Transforming Knowledge***. Philadelphia: Temple University Press.

Noddings, N. (1986). ***Caring, a Feminine Approach to Ethics and Moral Education***. Berkeley: University of California Press.

Noddings, N. (1991). "Stories in Dialogue: Caring and Interpersonal Reasoning." In C. Witherell, and N. Noddings (Eds.), ***Stories Lives Tell: Narrative and Dialogue in Education***, pp. 157-170. New York: Teachers College Press.

Resnick, D. P. and Resnick, L. B. (1985). "Standards, Curriculum, and Performance: A Historical and Comparative Perspective." ***Educational Researcher, 14***(4): 5-20.

Resnick, L. B. (1987). "Learning in School and Out." ***Educational Researcher, 19***(9): 13-20.

Sarason, S. B. (1991). ***The Predicatable Failure of Educational Reform***. San Francisco: Jossey-Bass Publishers.

Schon, D. A. (1983). ***The Reflective Practitioner: How Professionals Think in Action***. New York: Basic Books.

Schon, D. A. (1991). "Introduction." In D. A. Schon (Ed.), ***The Reflective Turn: Case Studies in and on Educational Practice***, pp. 1-12. New York: Teachers College Press.

Shaefer, R. J. (1967). ***The School as Center of Inquiry***. New York: Harper and Row.

Shepard, L. A. (1991). "Will National Tests Improve Student Learning?" ***Phi Delta Kappan, 73***(3): 232-238.

Sizer, T. (1984). ***Horace's Compromise***. Boston: Houghton Mifflin.

Tyack, D. B. (1974). ***The One Best System: A History of American Urban Education***. Cambridge: Harvard University Press.

Wiggins, G. (1989). "Teaching to the (Authentic) Test." ***Educational Leadership, 46***(7): 41-47.

Wiggins, G. (1990). "The Prices of Secrecy: The Social, Intellectual, and Psychological Costs of Current Assessment Practice." A Report to the Ford Foundation.

Wiggins, G. (1991). "Standards, Not Standardization: Evoking Quality Student Work." ***Educational Leadership, 48***(5): 18-25.

Appendix A

List of Contributors from the Four Seasons National Faculty

Tamara Baren teaches a multigraded intermediate elementary class at the Agnes Risley Elementary School in Sparks, Nevada. Foxfire has helped to guide her work with young people and other educators to create a supportive and challenging life in schools.

Lynn Beebe, a primary teacher at Ardmore Elementary School in Bellevue, Washington, teaches in an open-space, multiage setting where students stay with her for three years. She is a Foxfire teacher who uses a project-based approach to curriculum and deals with classroom issues through democratic class meetings. Lynn is involved with both math and language arts assessment on school, district, state, and national levels. Her particular interest is in how children think and she uses assessments to inform her of this process.

Carol Coe is a high school teacher in Puyallup, Washington. She has taught for 24 years, first in the area of speech and debate, more recently in social studies. Both Action Research and Foxfire have influenced her teaching.

Betty D. Crytzer is a resource teacher for gifted sixth- through eighth-graders at the Greenwood Lakes Middle School in Lake Mary, Florida. She is Foxfire-trained and has been teaching for 25 years. Betty plans to continue her work in authentic assessment.

Linda Caldwell Dancy teaches English to seventh- and eighth-grade gifted students at Greenwood Lakes Middle School in Lake Mary, Florida. She uses the Foxfire approach in her classroom and is the co-coordinator of Partnership for Learning, the Florida Foxfire network. She is a writer of short stories, a facilitator of classes in the Foxfire approach in the classroom, and a student, pursuing her doctoral degree in curriculum.

Marko Holland Fong teaches social studies and English at Rohnert Park Junior High in Rohnert Park, California. A third-year teacher, Marko is in his first year at his present assignment. He has been active with the Coalition of Essential Schools since he began teaching.

Susan Hanley teaches kindergarten at the Little Falls Kindergarten Center in Gorham, Maine. She was selected, as part of the Project Zero team, to be an Atlas Teacher Scholar. Susan is co-chairperson of the Southern Maine Chapter of Educators for Social Responsibility.

Beverly Hoeltke is a primary teacher at the Key School in Indianapolis, Indiana. She is a 1992 Christa McAuliffe fellow who was part of the founding of the Key School in 1986. She became involved with Project Zero through her search for an alternative to testing. The

alternatives for her have been video and cumulative portfolios with evaluation and reflection done by the child. She has worked with Project Zero for the past seven years.

Bil Johnson, presently a doctoral student at Teachers College, Columbia University, has been a classroom teacher for 21 years, most recently at Bronxville High School in New York. He is a member of the first cohorts of both the Coalition of Essential School's National Faculty and the Four Seasons National Faculty. His article "Creating Performance Assessments" appears in the Winter 1992 issue of the *Holistic Education Review*.

Joel Kammer has taught high school in Santa Rosa, California, since 1978. Currently, he teaches English advisory and a combination science/math course at Fulton Valley Prep, a self-contained learning community within Piner High School, a Coalition of Essential Schools member since 1992. He is Piner's research and development specialist, a Santa Rosa District mentor teacher for instructional practices and assessment, and a California Regional Fellow for the Santa Barbara 1274 Restructuring Schools Program. His articles on teaching and restructuring have appeared in *California English and Ideas for the Working Classroom*.

Juliana Kusz teaches elementary special education at the Tuscan School in Maplewood, New Jersey. She is a member of the Project Zero team and is currently researching and developing the implementation of portfolios as an assessment tool in her district as well as consulting with other districts on a variety of curricular and restructuring issues. Her goal is to help *all* children discover their talents and interests by helping to create school communities that promote student self-reflection, empowerment, and self-determination.

Tina Lehn teaches first grade at the Marshall School in South Orange, New Jersey, and is affiliated with Project Zero. She has been involved in the process of restructuring both within her district and outside of it. Tina has been investigating alternative ways of assessing children's learning to demonstrate children's growth to themselves and to other community members, especially in the areas of reading and writing. Currently she is exploring the use of portfolios and video to document children's learning with the goal of helping children recognize and assess their own learning.

Kathy McLaren teaches first grade at the Beverly J. Martin Elementary School in Ithaca, New York. As a Foxfire teacher, she believes in making learning experiences relevant and purposeful for her students.

Tony Peake teaches with a fifth- and sixth-grade middle-school team at the J. Graham Brown School in Louisville, Kentucky. He is engaged in the Coalition of Essential School activities at the Brown School and in the Jefferson County Public Schools. Tony has been a longstanding advocate of school reform, beginning as a Teacher Corps intern in Appalachia 26 years ago, and continuing today in an optional schools program in Louisville.

Fran Powers teaches math to first- through sixth-graders in a Chapter 1 remedial program at Millard Fillmore Elementary School in Moravia, New York. She has been a Foxfire teacher

for five years and has been an active member of the steering committee, the staff development committee of the Network of Empire State Teachers (NEST) of Foxfire Teacher Outreach, in addition to being a co-instructor of Foxfire courses. She has 20 years experience working with "at-risk" students at the elementary level.

Linda Quinn has worked as a public school educator in Washington State for 20 years. She taught English at the junior and senior high school levels and has held positions of assistant principal and principal in two different junior high schools. Currently she is principal of Puyallup High School, which serves a population of 1,600 students in grades 10 through 12. Linda is a member of Soundfire, the regional Foxfire network.

Barbara Renfrow-Baker team-teaches in a multiage classroom of 44 six- to nine-year-olds at the Woodridge Elementary School in Bellevue, Washington. Barbara and her team partner, Marla English, were trained by the Soundfire network of Foxfire in 1992 and joined Four Seasons in 1993. She is a "math leader" at Woodridge who helps staff and parents understand changes in the mathematics curriculum and assessment. Currently, Barbara and Marla are piloting literacy portfolio projects and performance-based mathematics tasks, as well as other authentic assessments in their classroom.

Phyllis Siwiec, who is Foxfire-trained, teaches second grade at the Fall Creek Elementary School in Ithaca, New York.

Cathy Skowron teaches second grade at the Veteran's Memorial Elementary School in Provincetown, Massachusetts. She has found that her school's collaboration with Project Zero has given her the language to better articulate the knowledge gained from years of teaching experience. The Project Zero collaboration has fueled restructuring efforts in the classroom and school as Cathy and her colleagues have worked to develop a portfolio system to document student learning. Cathy's commitment is to provide her students with experiences that allow them to discover their relationship to learning in ways that are meaningful and authentic.

Mary Stuart teaches humanities to juniors in an interdisciplinary program, which includes English, history, and fine arts at Oceana High School in Pacifica, California. Her school joined the Coalition of Essential Schools when it was restructured in 1992. Mary has been teaching for 26 years but she has found these past two and a half years to be the most exciting and rewarding time of her career. In addition to teaching, Mary works with 15 new teachers in her school district as a peer consultant and evaluator.

Carol White, who is affiliated with Project Zero, is currently the Visual Specialist at the Key Elementary School in Indianapolis. She has provided school restructuring presentations for Phi Delta Kappa, Career Education, Ingaham County School District, Chicago Teachers Union, and other school organizations. Her experience includes seven years in museum education, two years as an artist-in-residence in Indiana, and 11 years as a professional artist.

BEST COPY AVAILABLE

PRINTED ON RECYCLED PAPER